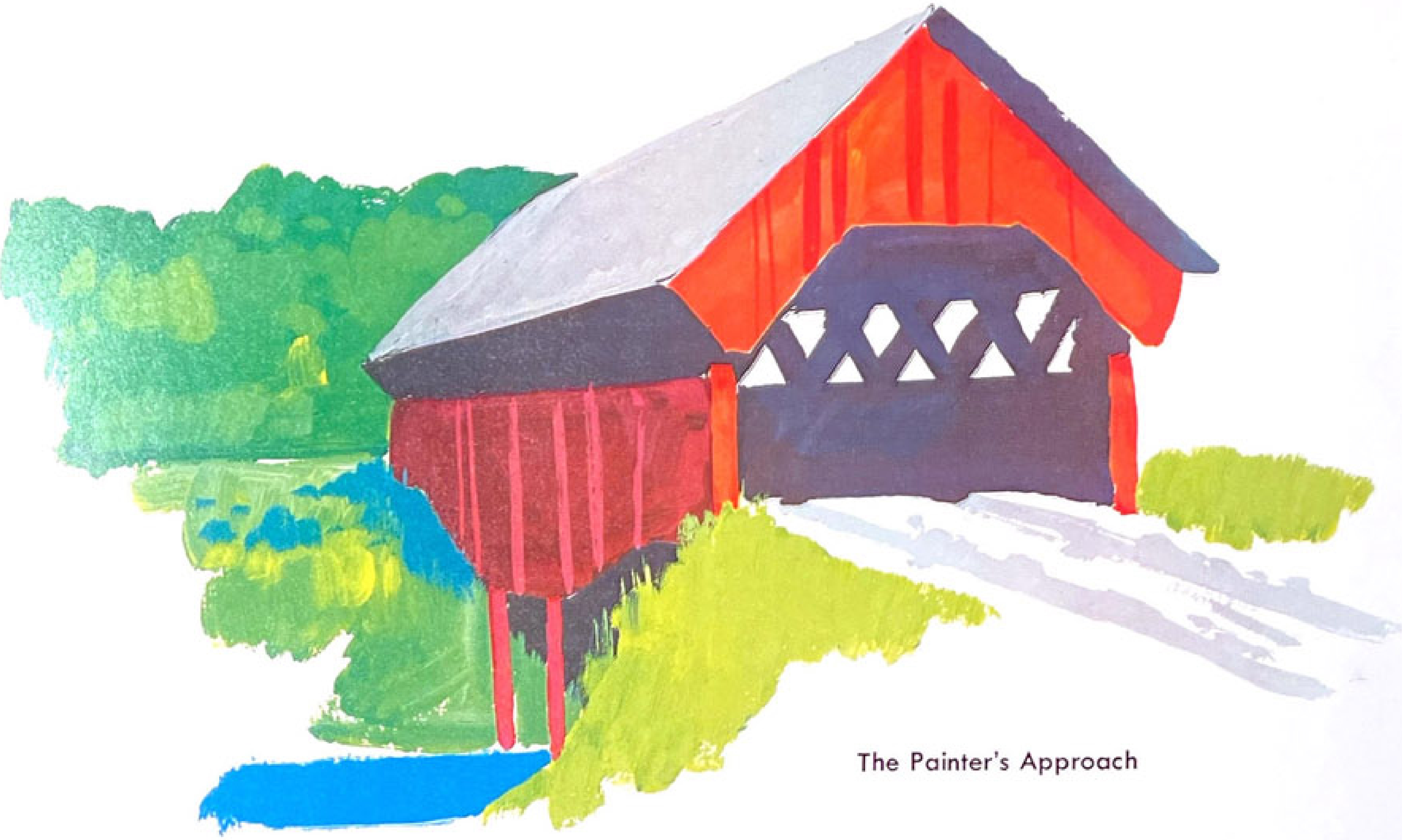
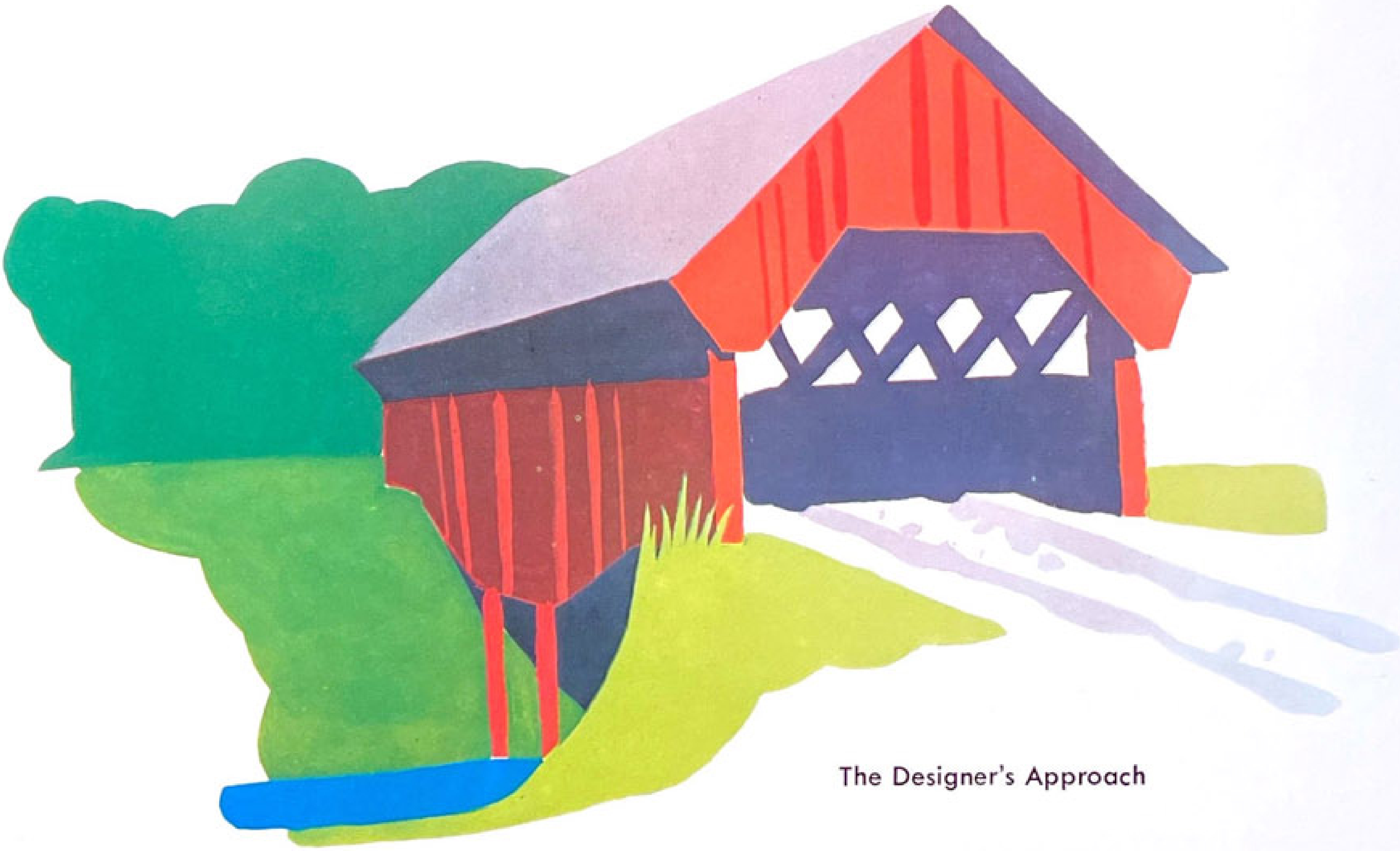
Basic Color

Art Instruction Schools

Artwork for Assignment



The Painter's Approach



The Designer's Approach

Painting With Designers Colors

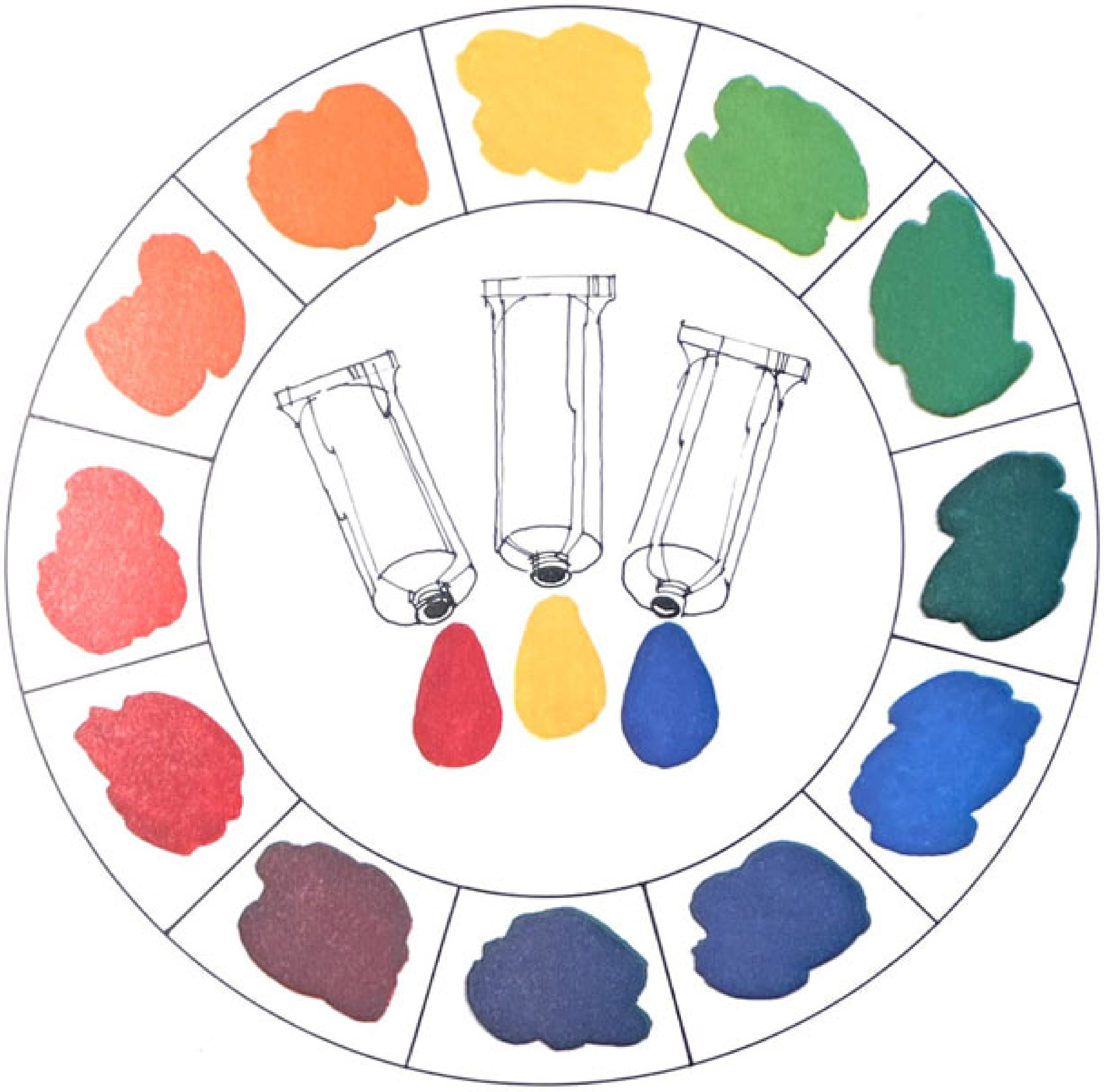
Designers colors are semi-thick, water-base paints. They are commonly used by artists for many of their projects.

These paints are fairly easy to use. There are no messy solvents, such as turpentine, to contend with. Simply use water to thin the paint and to clean the brushes.

The paint in the container is fairly thick, so it usually has to be thinned with water before it will spread well. An artist has a choice as to how thick or how thin he wishes to work. Water may be added until the designer colors act like transparent water color.

There are probably as many different ways to approach the painting of a picture as there are artists. The system that works best for you is the best system! But, since painting is probably a fairly new experience for you, let us recommend the following suggestions. Give these ideas a fair try. We think they will help you make better pictures.

1. Many artists start a painting by making a pencil line drawing on the painting surface (illustration board or heavy weight paper). An HB pencil should give you the strength of line you need for painting.
2. Take the largest brush you own and cover the total picture surface with color as quickly as you can. It is very difficult to judge color and value relationships with patches of white board showing here and there.
3. Keep your first color lay-in thin enough so that you can still faintly see your pencil guidelines. Wipe away any thick paint build up with a paint rag or damp sponge.
4. Continue the painting with a slightly thicker, creamier consistency of paint. Generally it is wise to let each area of color dry before going back into it with another color — the exception being, "wet-into-wet" blending.
5. If you ruin a small area, let the area dry thoroughly and then paint directly over it. Large areas which are unsatisfactory can be wet down with clear water and, after the water has had time to soften the paint, the entire area can be "lifted" off by wiping with a sponge or clean soft cloth.
6. Always try to paint the largest areas first. Work from large to small, from background to middle ground to foreground. Don't paint a sky *around* a telephone pole. Paint the sky, let it dry and then paint the pole *over* the sky. Paint a plaid pattern over a base color, buttons over a shirt color, eyebrows over flesh color, etc.
7. Don't get discouraged and don't give up! When your pictures don't measure up to John Berkey's or Brent Copp's, remember these pros have 15 years of experience behind them. And remember also, they started right where you are, at the beginning. So get started. And keep going. And, "good painting" to you!



Basic Color

There are many complex theories regarding the study of color. However, we'll stick to a practical approach, one which you can put to use right away.

In this subject area we'll keep the instruction focused on "basic color concepts." We will give you just the fundamental information you need to start painting better pictures. Once you have these "basics" under your belt, you can get busy with your paints and brushes. We know you're anxious to begin working in color.

For your color study you have only the primary colors plus black and white. *The primary colors are: red, yellow and blue.* Limiting you to only three colors and black and white may sound like a strange way to teach you about color. It really isn't. Using only three colors and black and white gives you a chance to mix all the other colors you need. Once you learn about shading, tinting and graying, you can create almost any color you'll ever need . . . from just the three primaries and black and white.

All of the color wheels and color demonstrations were done with designers color paints. These are the same paints you will use. They are the same type of paints many national advertising artists and illustrators use. When you know how to mix and apply designers colors, they will serve you well and give you a great deal of enjoyment and satisfaction.

Designer colors are called water-base paints because they contain water and can be thinned with water if they are too thick or dry out. The soft sable brushes you use with your designers color paints should be cleaned in water. You should never NEVER use turpentine or any other oil-base solvent with designers colors or to clean your brushes.

On this page is a simple color wheel composed of twelve colors. The primary colors — red, yellow and blue — are shown in the center of the wheel. The primaries are also located on the wheel and each of the other nine colors on the wheel were mixed from the primaries.

It is not difficult and you will quickly see how *nine* colors can be mixed from only *three* colors. That practice and the knowledge you gain from it will launch you into your study of color.

After you experience mixing the colors of the wheel you will begin to see how easy it is to mix almost any color you need. Later in this study area you will learn how to use the wheel to help you gray a color. Methods for tinting and shading and an explanation of color value will further broaden your understanding of this subject. If you are like most students, you will find this an exciting and challenging part of your art training.

So, let's get started.

Basic Color Wheel

The basic color wheel has twelve colors sometimes referred to as the "twelve pure colors." The wheel starts with the primaries: red, yellow and blue. See the smaller wheel on this page for the proper location of the primaries.

There are blank spaces between the three primary colors, on the smaller wheel. The various mixtures we are about to make will go into these blank spaces to complete the wheel. We will mix nine (9) new colors using *only* the three (3) primary colors: red, yellow and blue.

The Secondary Colors

There are three secondary colors: orange, green and violet. These three colors are called "secondary colors" because each is a combination of two primary colors. Note the larger of the two wheels on this page for the correct location of the secondary colors.

Here are the color combinations used to mix the secondaries:

> *Orange* comes from the primaries, yellow and red.
>
> *Green* comes from the primaries, yellow and blue.
>
> *Violet* comes from the primaries, red and blue.

Now you know what colors to use when mixing the three secondaries: orange, green and violet. Here is a more detailed explanation of how to mix your designers color paints to create these new colors.

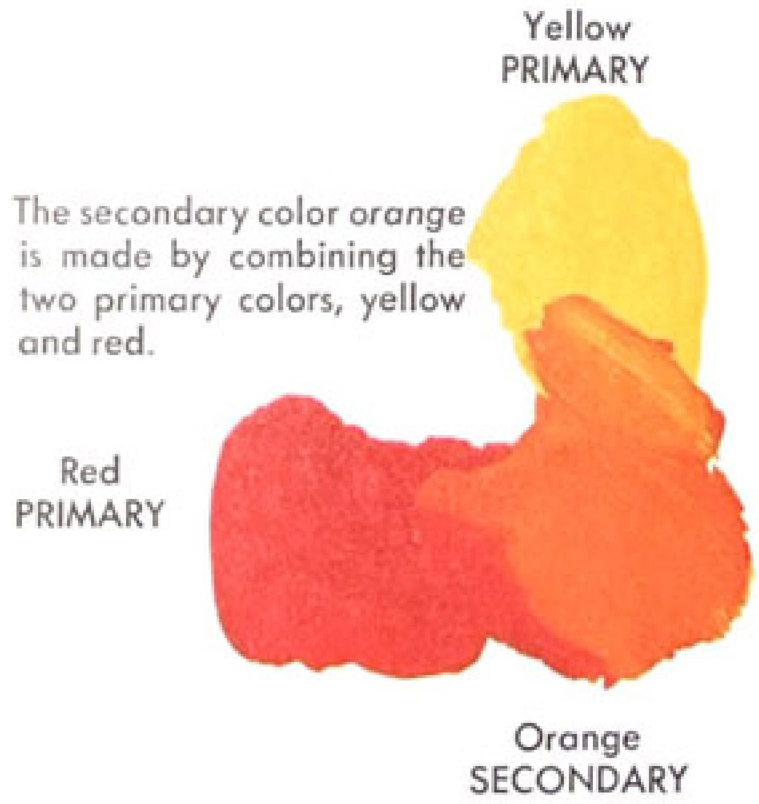
Whenever you mix paints you must keep in mind that some colors are more powerful than others. If you use a half and half formula to mix an orange, for example, the orange you get will be a red-orange. The red paint is much stronger than the yellow so you need to use a larger quantity of yellow paint and less red to mix an orange that will match the secondary orange on our color wheel.

The point we made about mixing orange applies when using yellow and blue to mix green. Use a small amount of blue with a larger amount of yellow.

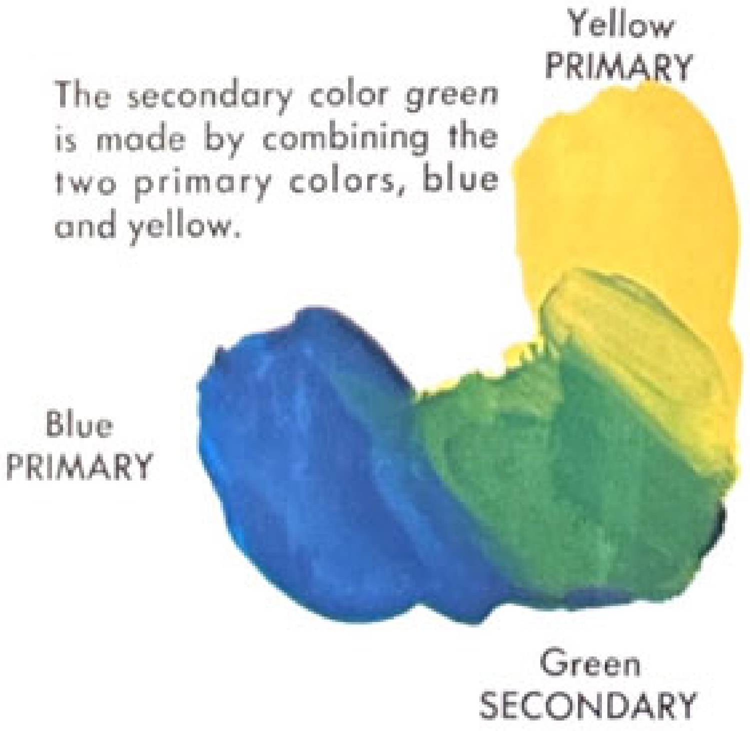
Violet is an exception. The blue paint and red paint mixed together for the violet color are about the same strength and power. You can use about equal parts of red and blue. You may find that the violet color is very dark. You may want to add just a small amount of white paint for a more pleasing violet color.

Take a look at the larger color wheel on this page to note the placement of each sec-

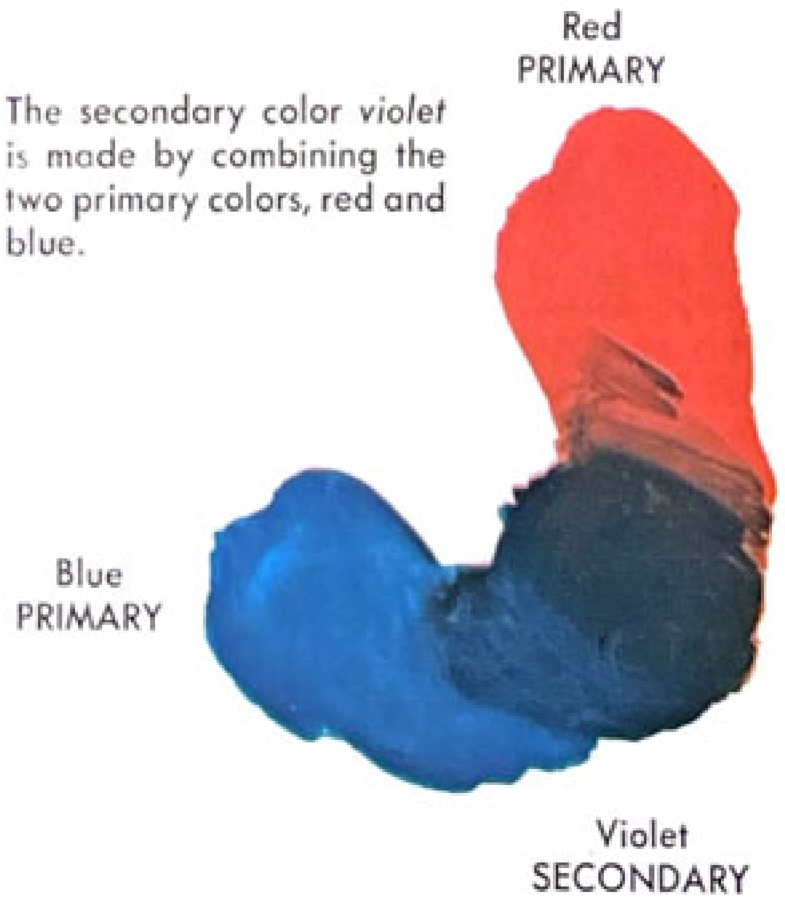
The secondary color *orange* is made by combining the two primary colors, yellow and red.

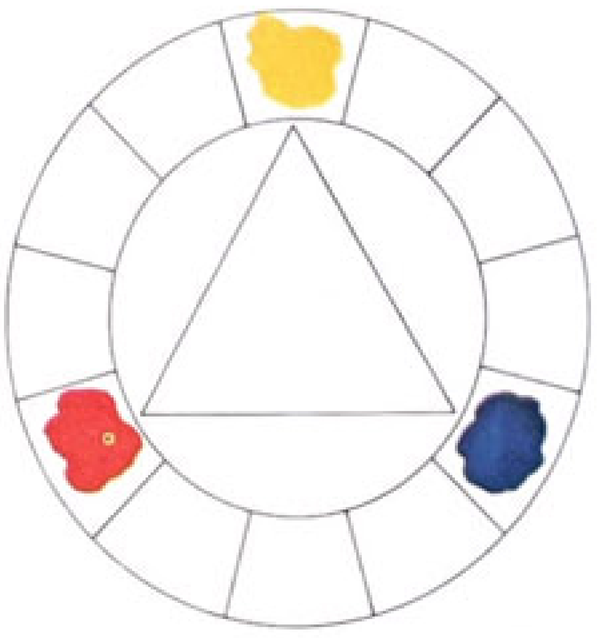


The secondary color *green* is made by combining the two primary colors, blue and yellow.



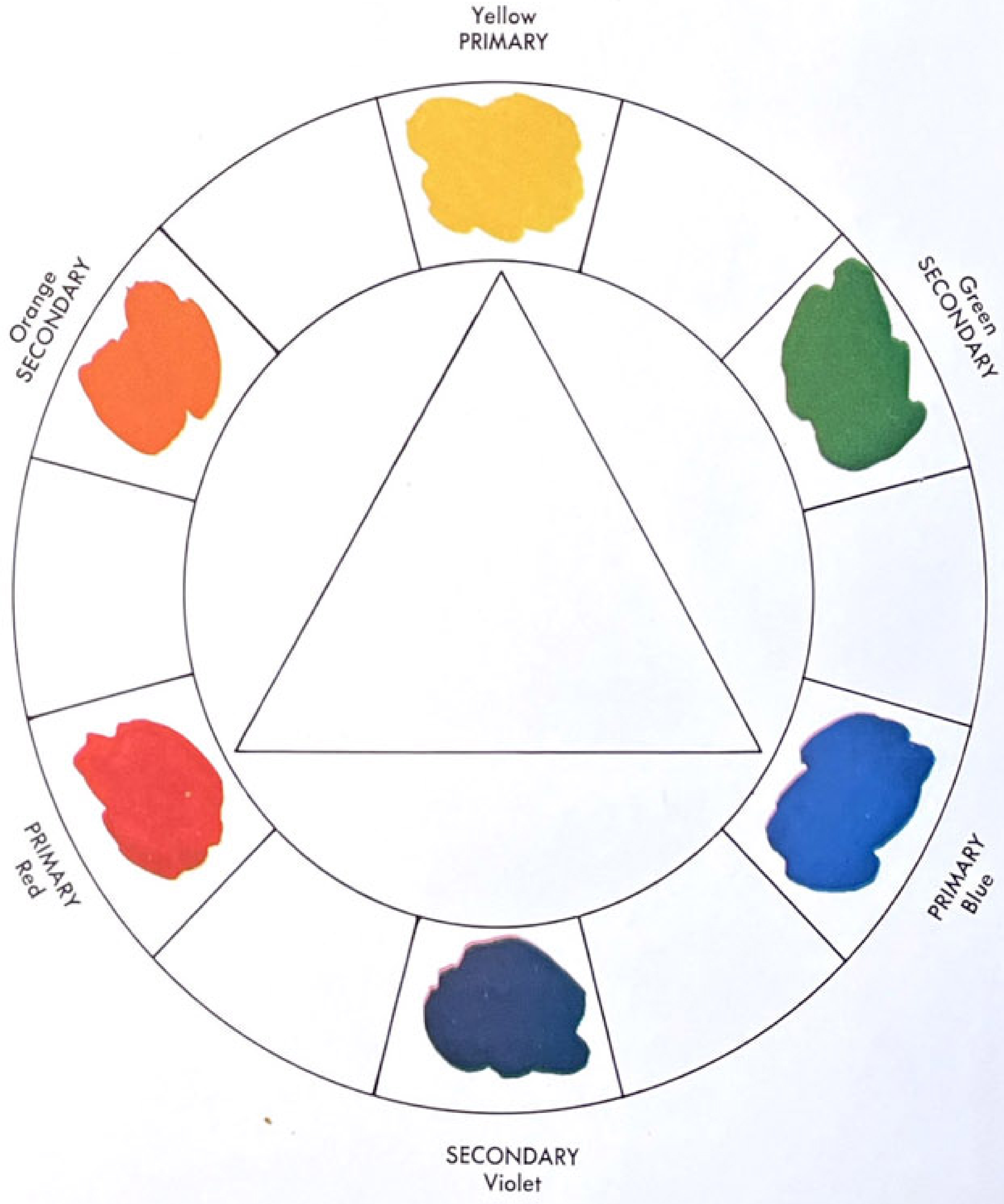
The secondary color *violet* is made by combining the two primary colors, red and blue.





The color wheel is started with the three primary colors, red, yellow and blue. From just three color, plus black and white, you will learn to mix a great variety of other colors.

The color wheel below shows the proper location for the primary and secondary colors. Note that one space is left between each primary and each secondary color.



ondary color. Observe that each sample of secondary color (orange, green and violet) is placed half way between its neighboring primaries on either side. This allows space for the next colors we will mix, but it also emphasizes this important point: *secondary colors must appear to be half way between the color of the two primaries from which they were mixed.* Green should not lean towards being a BLUE-green nor should it appear as a YELLOW-green. As we explained earlier, you use less of the stronger primary with more of the weaker primary to arrive at the desired color. It is a matter of experimenting with different amounts of paint and using your "artist's eye" to judge the color you create.

Tertiary Colors

The tertiary colors (pronounced, ter-sure-ree) are the last members of the basic color wheel. *There are six tertiary colors: yellow-orange, red-orange, red-violet, blue-violet, blue-green and yellow-green.*

Each tertiary color is created by combining a primary with its nearest secondary. For example, you mix the primary yellow and the secondary green for the tertiary, yellow-green. Actually you normally wouldn't work that way. You look at the color wheel and see that the yellow-green is between yellow and green, so when mixing a yellow-green, you mix a large quantity of yellow with a small amount of blue. If the green that you get isn't yellow enough, add more yellow until you match the yellow-green on the color wheel. As with all color mixing, there are no scales or other mechanical measuring devices to make the job easier. You have to use your artist's eye as you experiment. You should strive to get the color of each tertiary you mix half way, visually, between its parent primary and secondary. If a color doesn't look right (when you compare your mix to our color wheel) you will have to add more of one of the colors to your mixture until you get the color you are after.

Below we have listed the names of the tertiary colors and the names of the colors used to mix each.

Yellow-Green is a combination of (primary) yellow and (secondary) green.

Blue-Green is a combination of (primary) blue and (secondary) green.

Blue-Violet is a combination of (primary) blue and (secondary) violet.

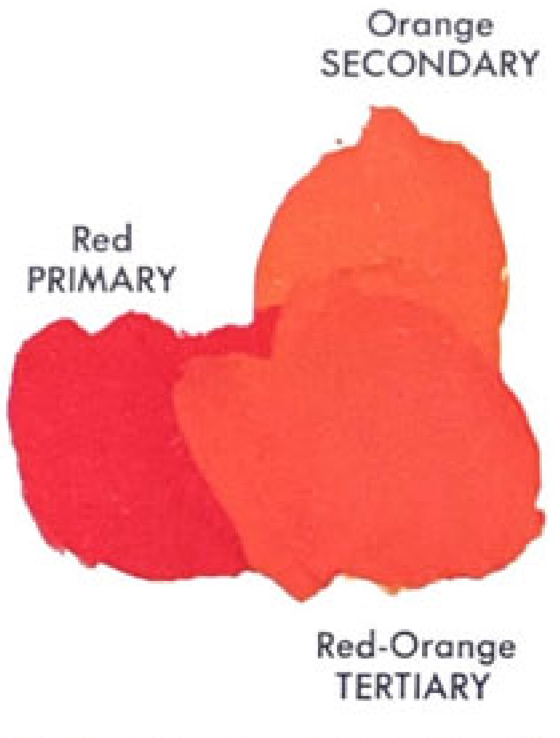
Red-Violet is a combination of (primary) red and (secondary) violet.

Red-Orange is a combination of (primary) red and (secondary) orange.

Yellow-Orange is a combination of (primary) yellow and (secondary) orange.

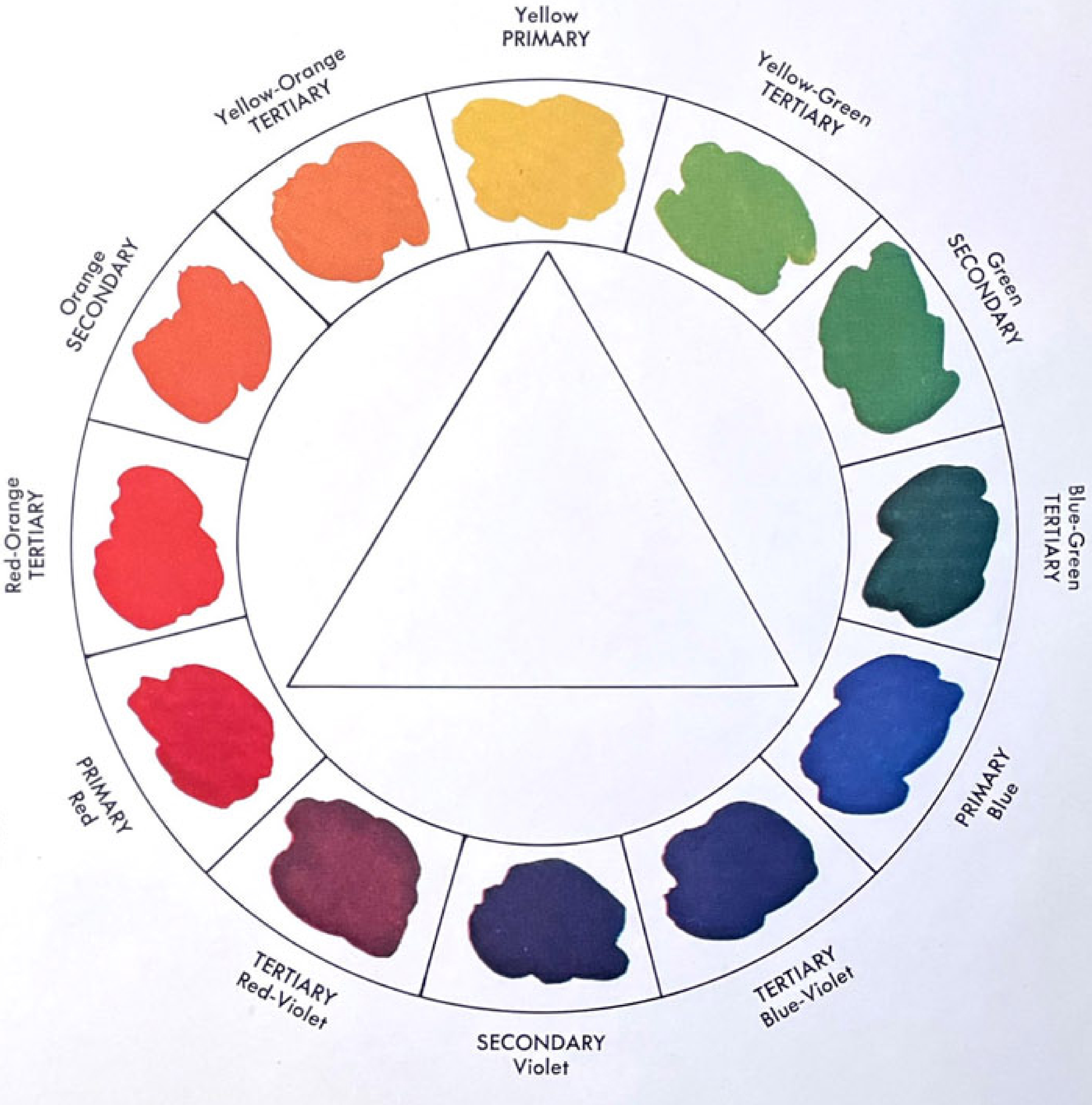
See the completed color wheel on this page. The twelve colors are positioned on the wheel, and each is labeled as a Primary, Secondary or Tertiary color. Make a color wheel of your own. You will find it very handy for reference. When you mix the colors for your wheel try to duplicate these colors. Keep in mind, however, that the wheel on this page was printed (with printing press inks) and you may not be able to match these colors exactly with your designers color paints.

You know that mixing the primary colors, red and yellow, will make orange, a secondary color.



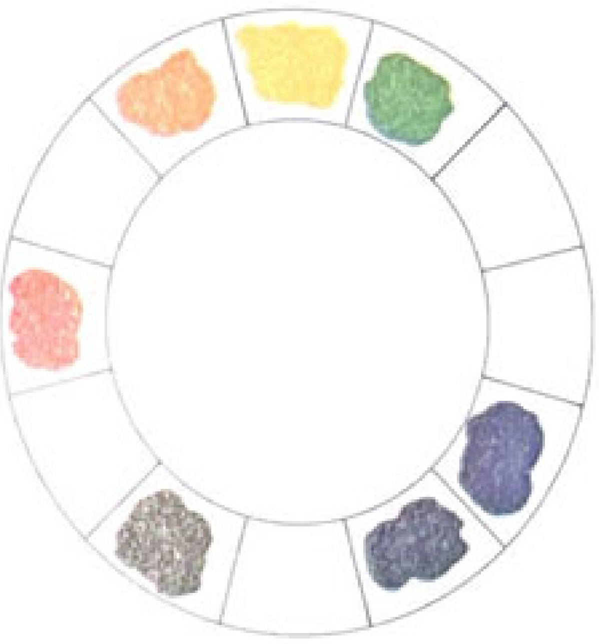
If you mix the primary color, red, with the secondary color, orange, you create a new color, red-orange. This color is called a tertiary color.

To the right you see the completed color wheel with all twelve pure colors. Each is labeled, primary, secondary or tertiary. We have also included each color's proper name.

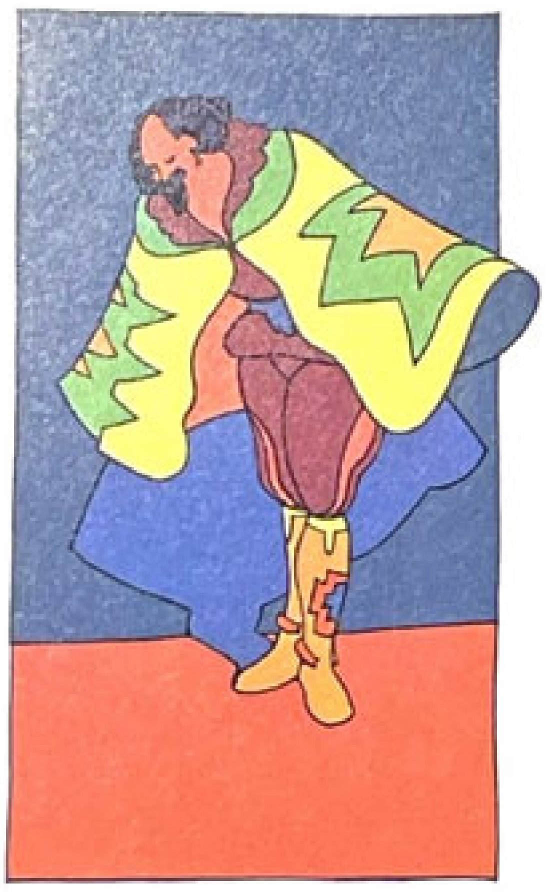


Pure Colors

You now understand how to mix the basic colors used in the color wheel. As you can probably guess, an endless variety of other color combinations can be mixed from these twelve. Rarely will you paint a picture using only these pure colors. Pure colors, because they appear almost equal in strength and brilliance, tend to compete with each other. Every color seems just as important as every other color. We say, "they fight with each other for attention." It's generally not desirable to have this visual competition. See how the colors compete in the design pictured below. Some of the colors need to be modified, changed, played down. As an artist using color, you must learn the various methods for changing the brilliance of colors. There are three main techniques: tinting, shading and graying. These techniques are explained in the text which follows.



On the small color wheel we have shown you the pure colors selected for use in this figure design.



The design is painted with pure colors only. As you can see, each color is fighting for attention.

Tints and Shades

The most obvious way to change the strength and brightness of a color is to mix it with white or black. There are even times when you add both white and black to a color at the same time!

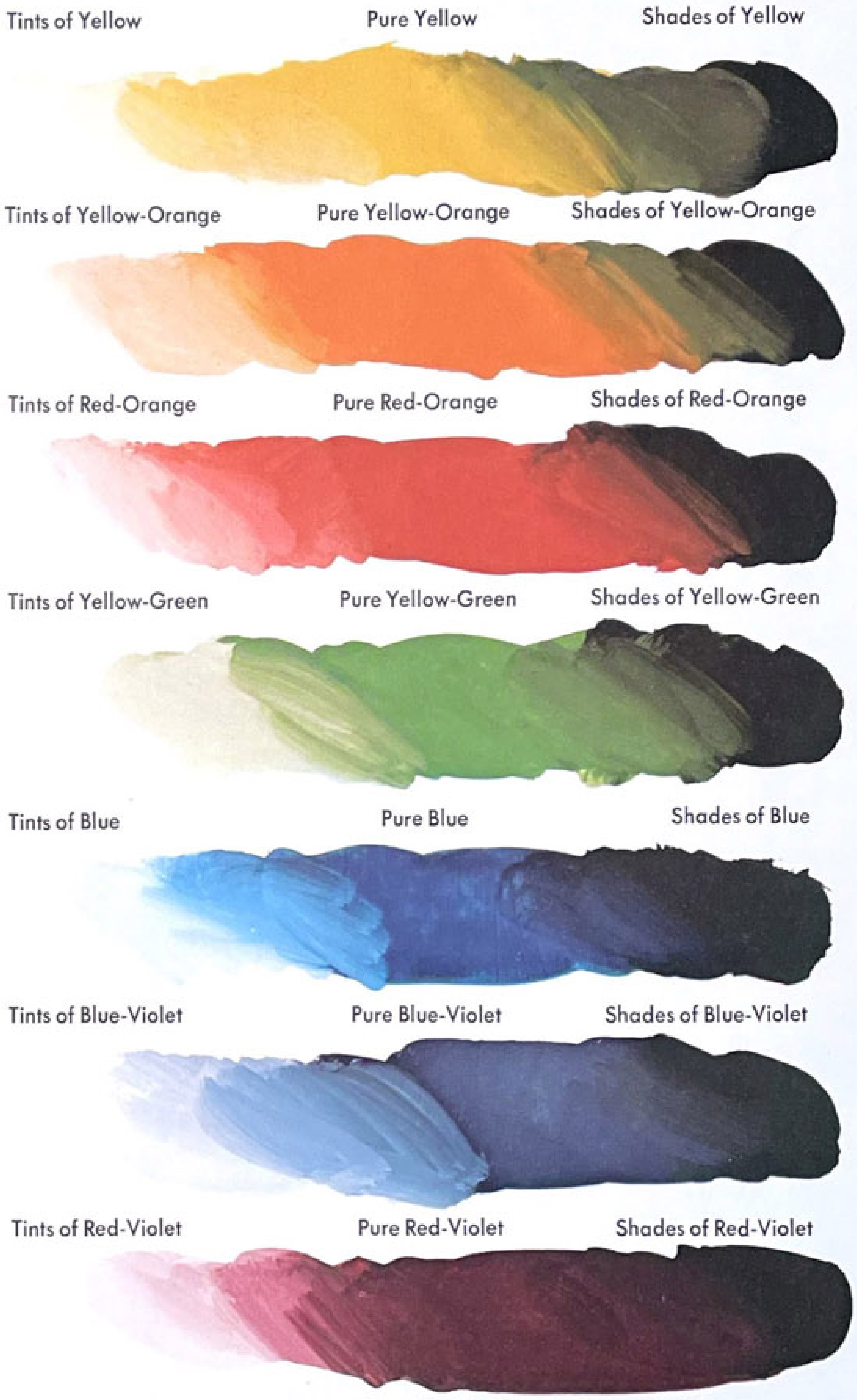
Here are two important terms to remember:

A tint is a color which has been lightened by the addition of white.

A shade is a color which has been darkened by the addition of black.

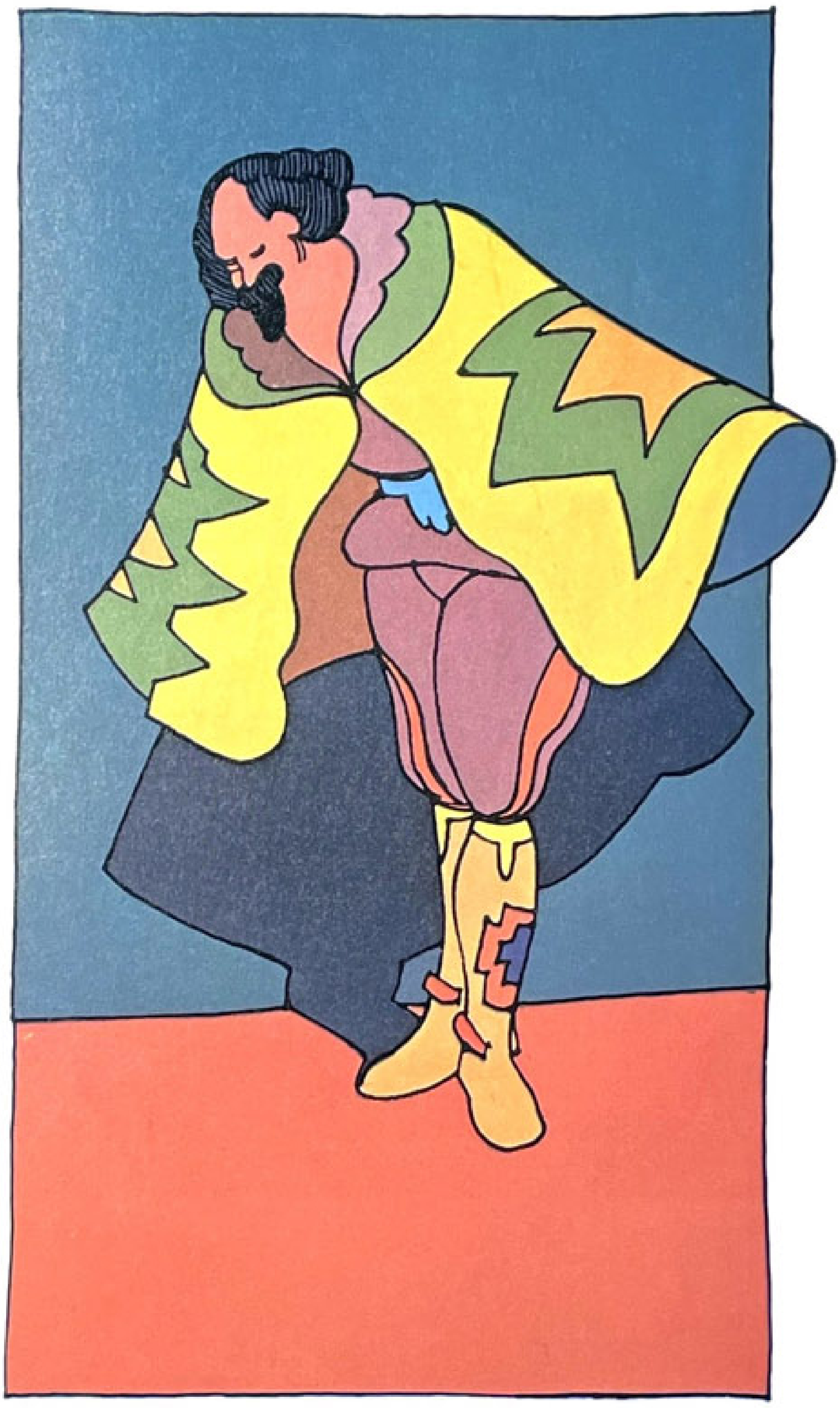
On the right we have taken the pure colors used in our design (above) and tinted and shaded each of them.

Across the page is a large version of the design on this page. In the bigger version we have used precisely the same colors but have altered some of them. Now some are shades, others are tints. The tinted, shaded design is much easier on the eyes than the pure color example.



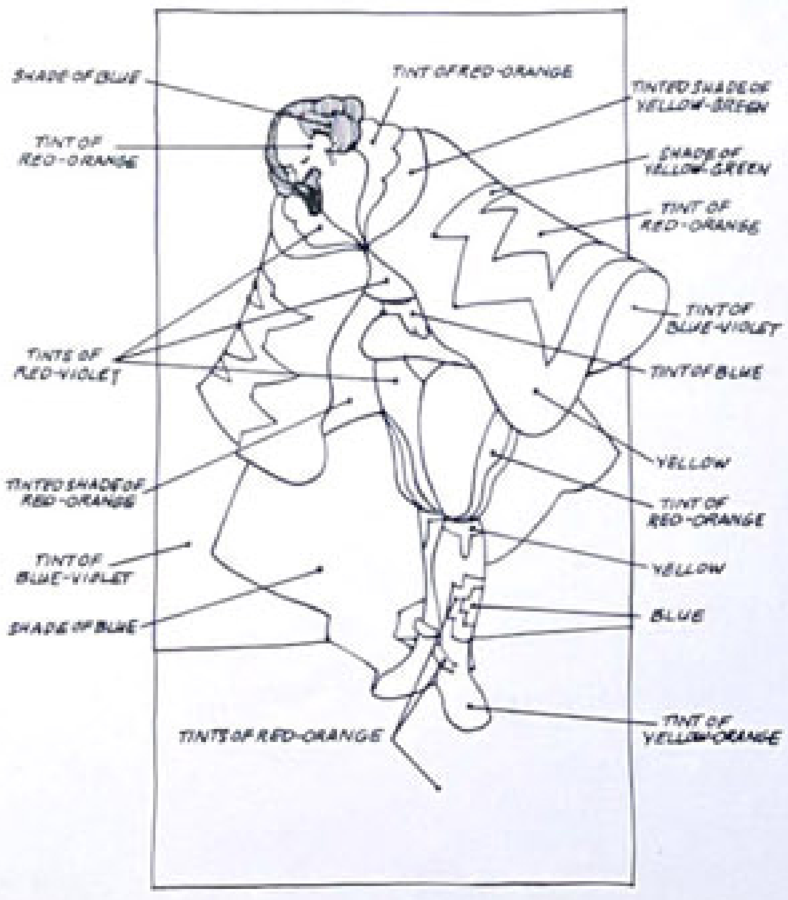
Here are all the colors used in the pure color design on this page. However, here we have altered each of the colors by mixing tints (on the left) and shades (on the right). By simply adding white or black you can change a color tremendously.

This gives you some idea of the variety of effects you can get by adding white or black or a little of both to a color.



Here some of the pure colors of the first design have been altered by tinting with white or shading with black or both. Some have been left pure. This gives you a chance to produce more variety and more interest. You can see how important it is to learn about mixing tints and shades for your own color work.

The various color combinations that we use in the "tinted-shaded design" are indicated here.



Graying with a Complement

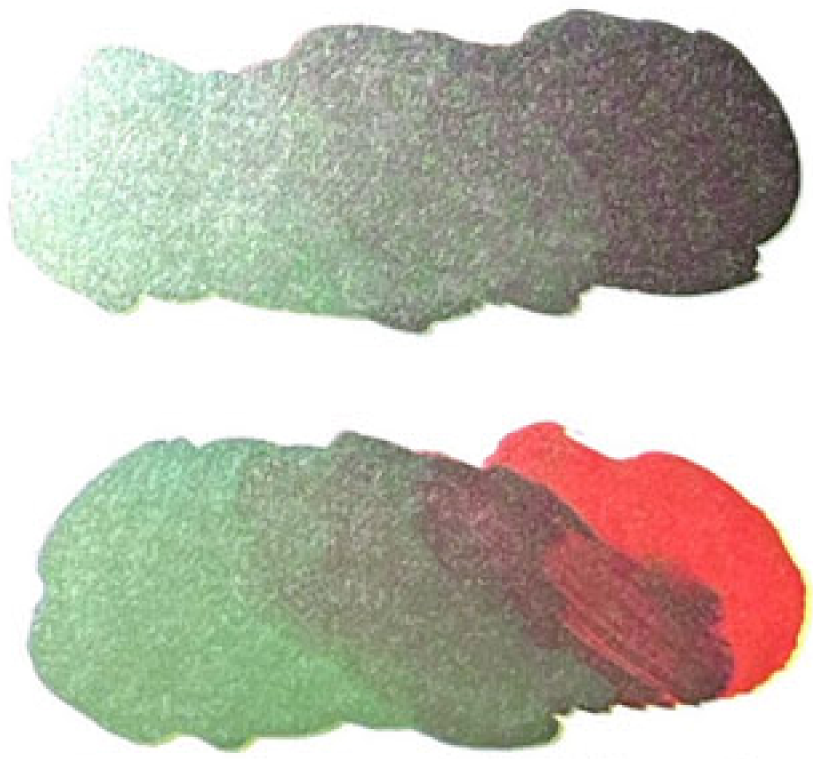
Graying a color is another way of altering its appearance. Graying tends to soften a color and make it less vivid. You take away the brightness of a pure color when you gray it by adding another color. Since we have said that you do not usually want all pure colors in a picture, you will have to know how to gray some of the colors you are working with.

Here is the principle to remember: *To gray a color, mix it with its own complement.* Each color has a complement color located directly across from it on the color wheel. For example, red's complement is green. Note the small color wheel on this page for the location of red and green. Note also on this page the swatch showing how red is shaded by mixing black into it. Below this example is a second swatch showing how red is grayed by adding green. As black is added, the red color gets grayer and darker. When green is added the red color is grayed without becoming quite as dark. The grayed red also appears more "colorful."

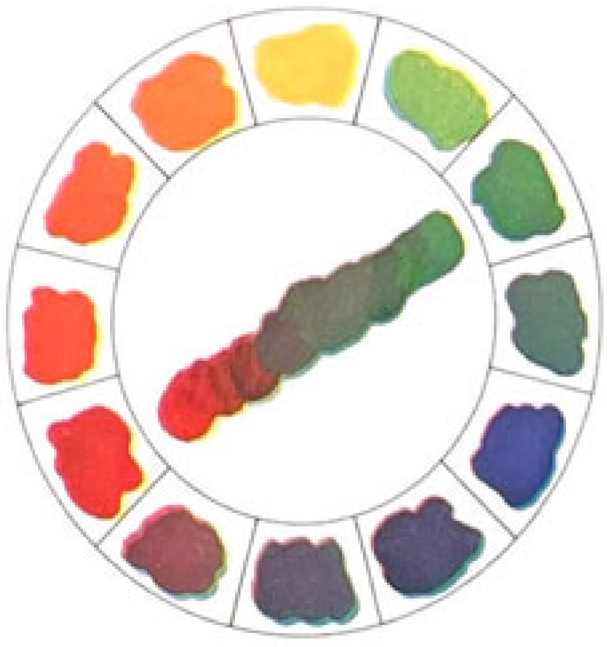
Let's use one more example to make sure you understand how to use a complement to gray a color. Say that you wanted to play down a bright red-orange. Look at the color wheel to find red-orange. Then follow this rule: *A color's complement is always found directly across from it on the color wheel.*

Just a tiny dab of blue-green mixed with red-orange would change the brightness of the red-orange. Of course, the more you add of the complement color, the grayer the original color will become.

Study the remaining color swatches and read the captions for more information on graying with a complement. Be sure you understand this important mixing technique before going on with your study of color.

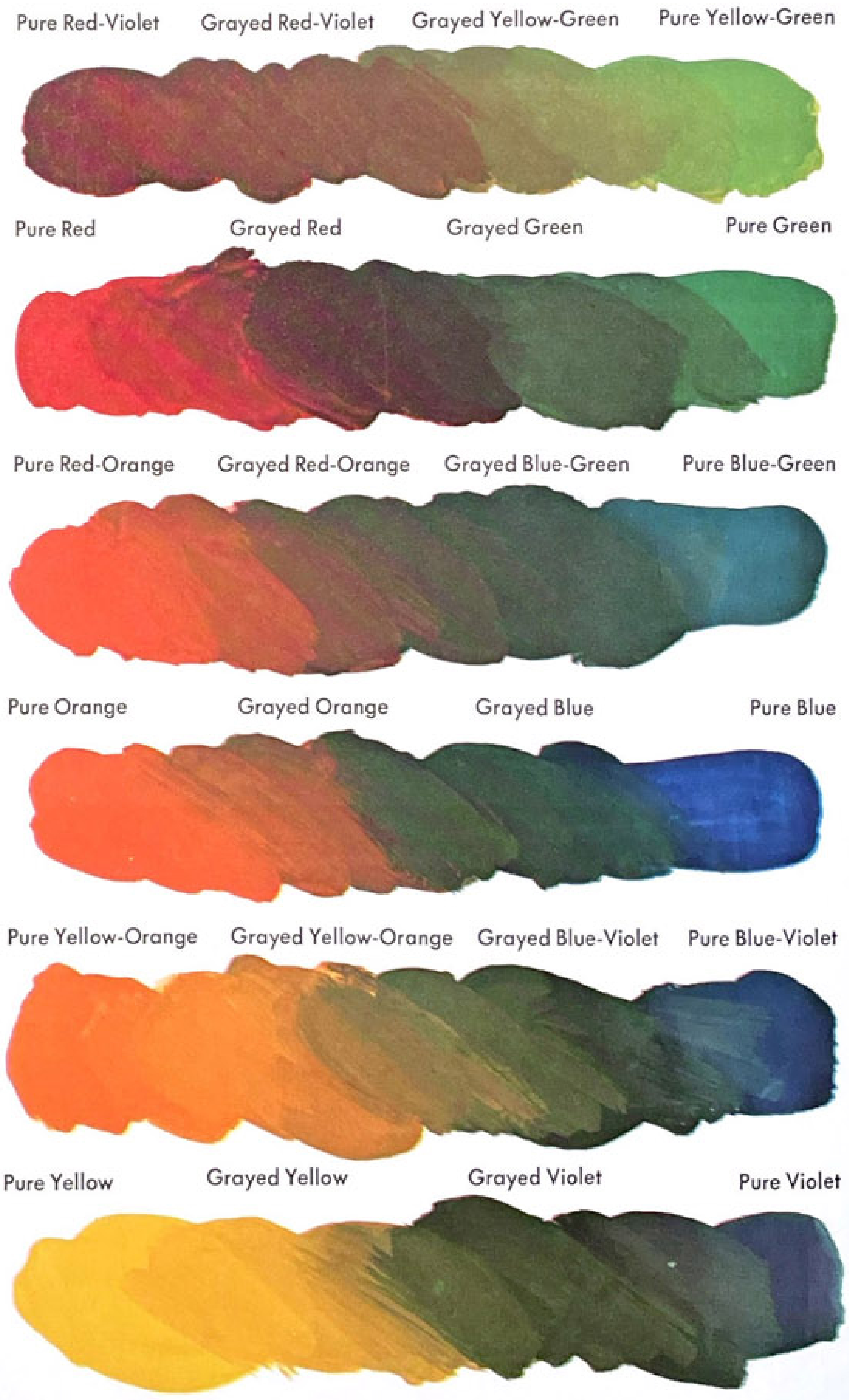


Compare the two methods of altering the green color! In the first example, green was shaded by the addition of black. In the second, green's complement (red) was used. Black tends to "kill" or overpower the original color more than if the color's complement is used.



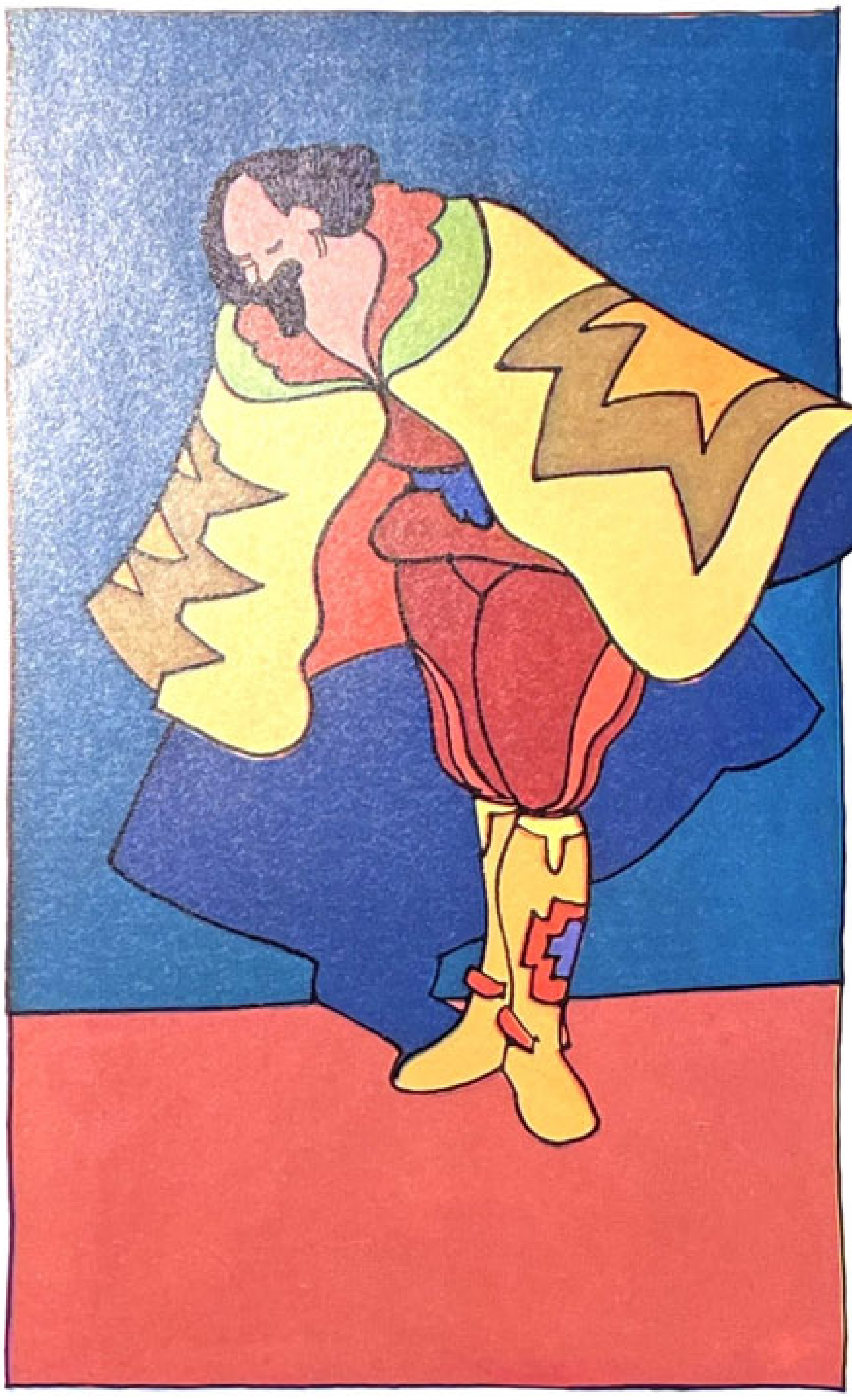
Complementary colors are always located directly across from each other on the color wheel. These opposites are used for graying each other. See how we have grayed the red by adding a little green — how the green is grayed by the addition of red.

On the right we have set out all of the colors from the basic color wheel. We have then mixed each color with different amounts of its complement to show you the various grayed mixtures which result.

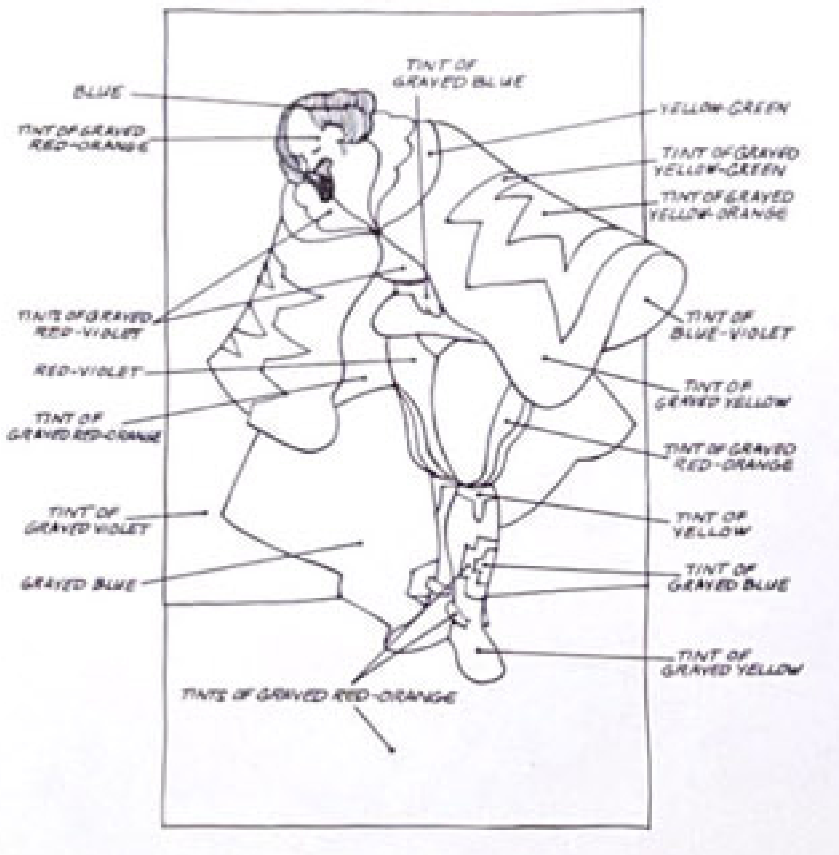


Some Grayed Colors

You have seen this design before. First it was painted with pure colors. Then you saw a second design where we altered some of the pure colors by tinting them with white and shading some with black. Below we have modified the pure colors by graying some of them. We used the technique of using a color's complement to gray the colors in this design.

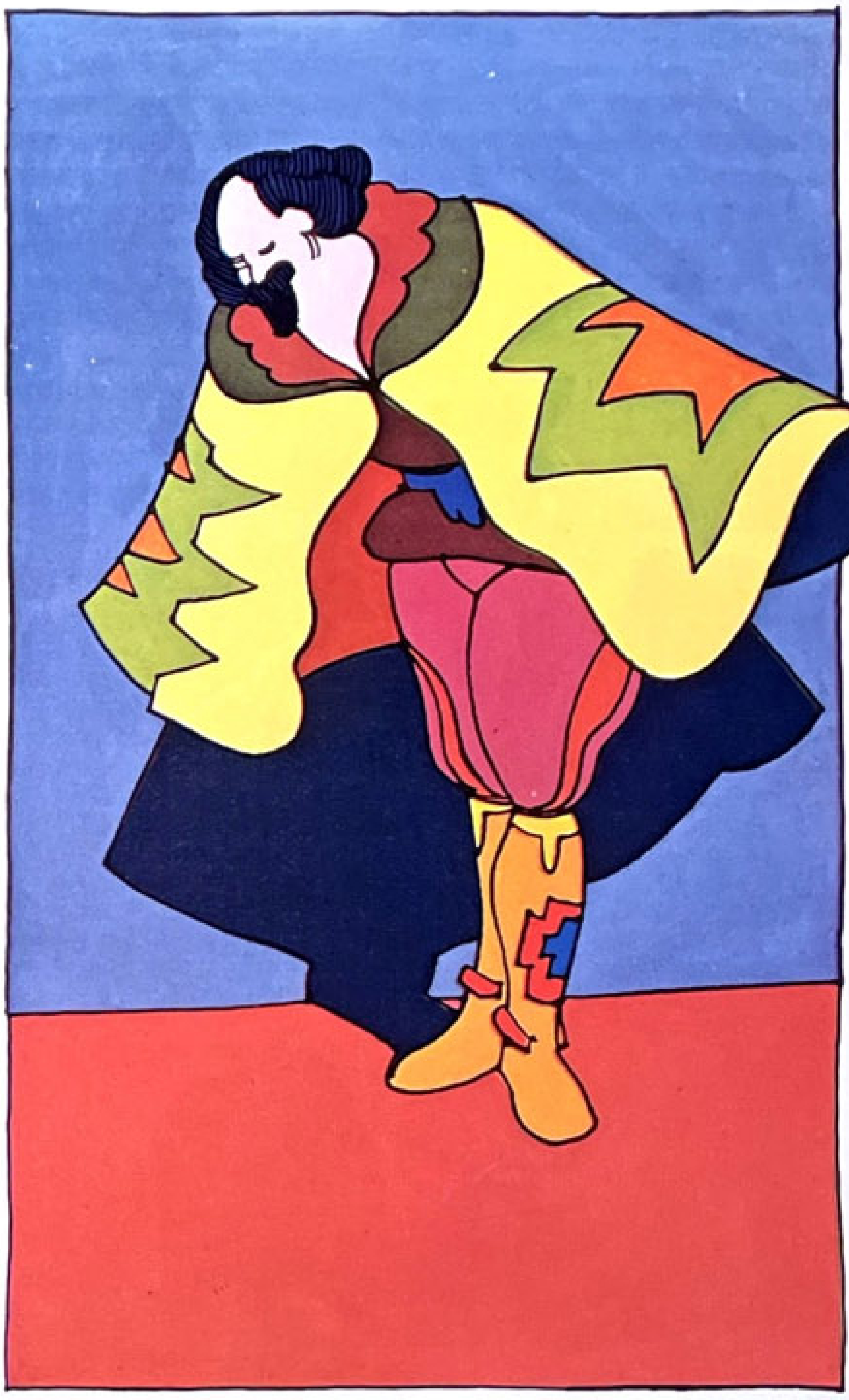


Here some of the pure colors of the first design have been altered by tinting with white or graying with the complement or both. Some have been left pure. These combinations give the design an entirely new look. See the diagram below for the various combinations used.

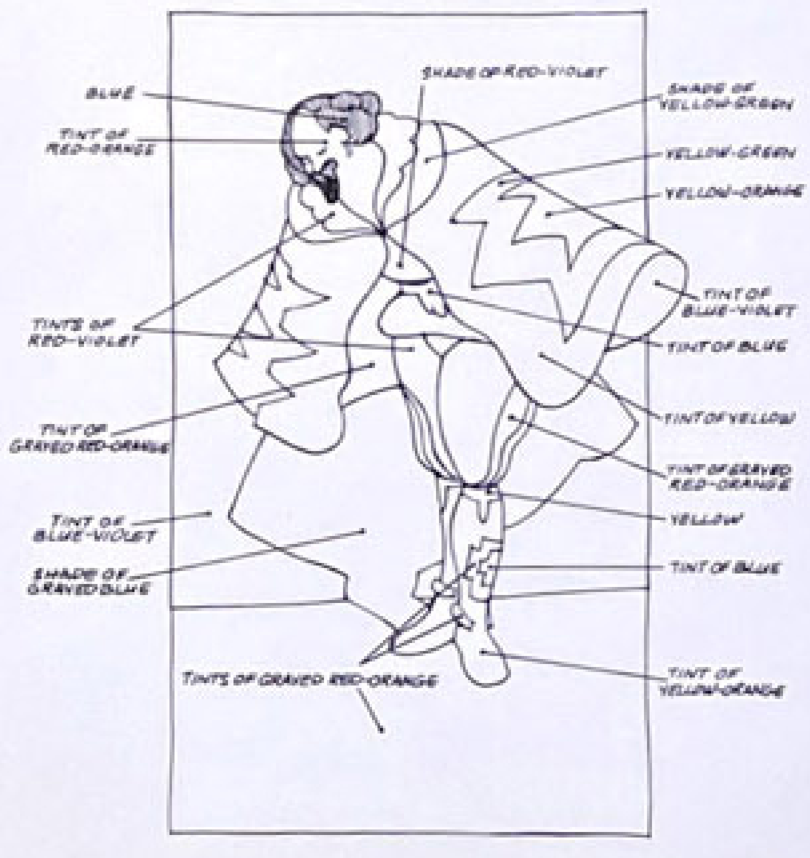

BLUE
TINT OF GRAYED BLUE
TINT OF GRAYED RED-ORANGE
YELLOW-GREEN
TINT OF GRAYED YELLOW-GREEN
TINT OF GRAYED YELLOW-ORANGE
TINTS OF GRAYED RED-VIOLET
TINT OF BLUE-VIOLET
RED-VIOLET
TINT OF GRAYED YELLOW
TINT OF GRAYED RED-ORANGE
TINT OF GRAYED RED-ORANGE
TINT OF YELLOW
TINT OF GRAYED VIOLET
GRAYED BLUE
TINT OF GRAYED BLUE
TINT OF GRAYED YELLOW
TINTS OF GRAYED RED-ORANGE

All Together

Below you see the design once more. In this design there are tints, shades, grayed and pure colors all in one picture. It is the contrast between subdued colors and bright colors which makes for a pleasing arrangement. With a knowledge of mixing you can produce just the effect *you* want. You should experiment every chance you can with mixing colors. The more you do, the more skill you will have.



This last design combines all of the mixing techniques that we have shown you. It has pure color, grayed color, tinted color, shaded color and a few combinations. This same design could be painted in many other color combinations. With the ability and knowledge to mix colors correctly, your chance to create new color variations are almost endless. See the diagram below, where we have listed the various color combinations in this design.

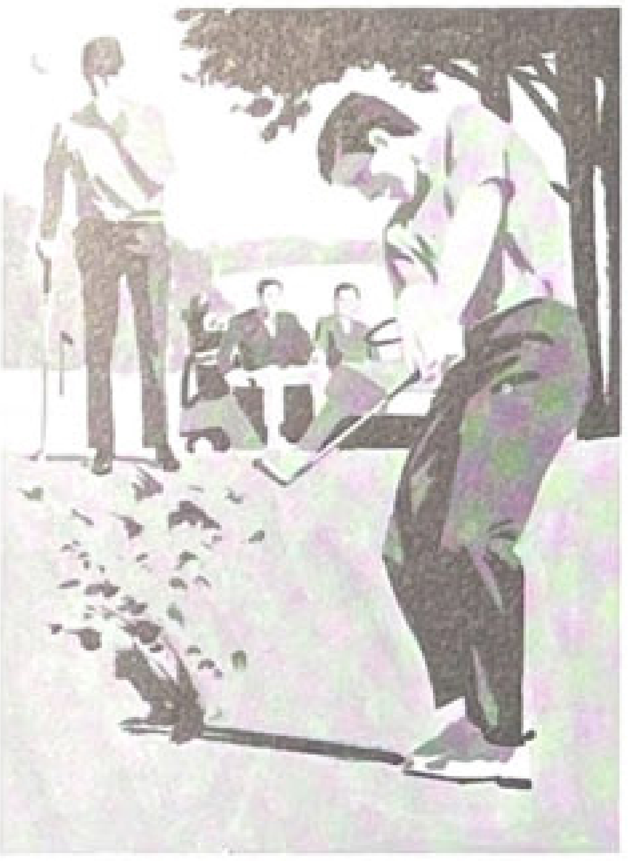


The Importance of Value

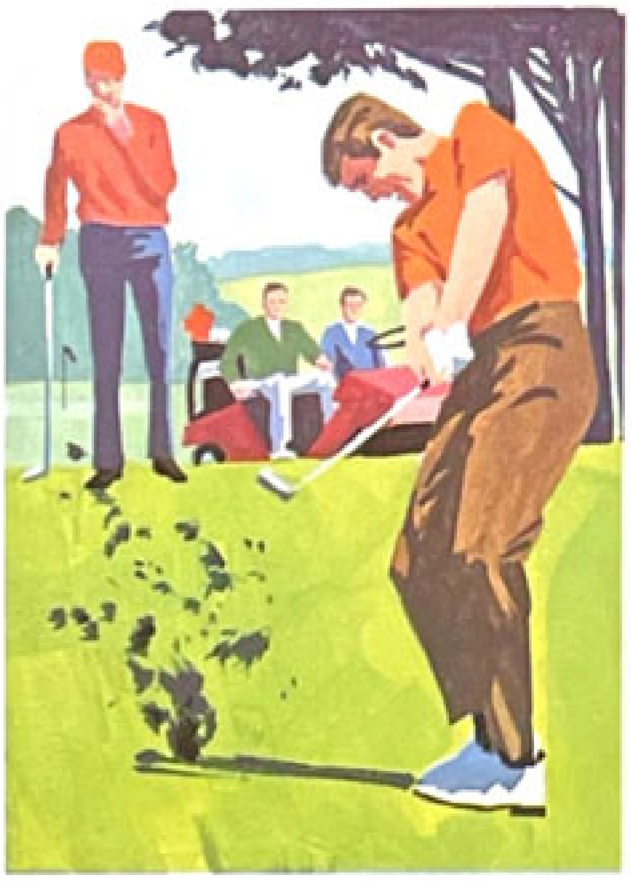
Most realistic paintings have a great variety of colors, tints, shades, pure colors and grayed colors. We say of such a picture, "It has a full range of values." You may find it surprising that we refer to a full-color painting as having values. Up to this point we have used the term *value* to refer to tones of gray in a drawing . . . usually a shaded pencil drawing. The word value refers to the lightness or darkness of gray tones *and* colors. Artists know that colors have values, too.

Probably the biggest difference between an untrained artist and one who has received good instruction is that the trained artist appreciates the importance of color values. This is why the trained artist always plans the values in a picture before starting to paint. Most trained artists have a well established habit of making small pencil sketches to plan the values for their pictures. They know a good value plan will almost insure a better finished picture. There is a saying among artists that, "If the values are right, the colors can't be wrong!"

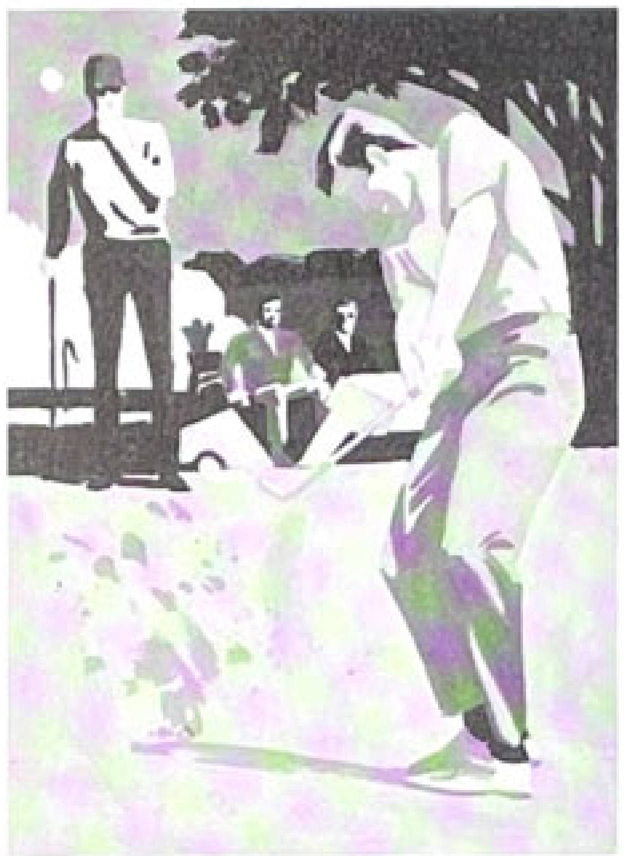
The demonstrations on this page further show the relationship between colors with light or dark values. You will see how a picture is improved by the correct use of values. You will understand that a good color painting generally needs a full range of values from lightest to darkest.



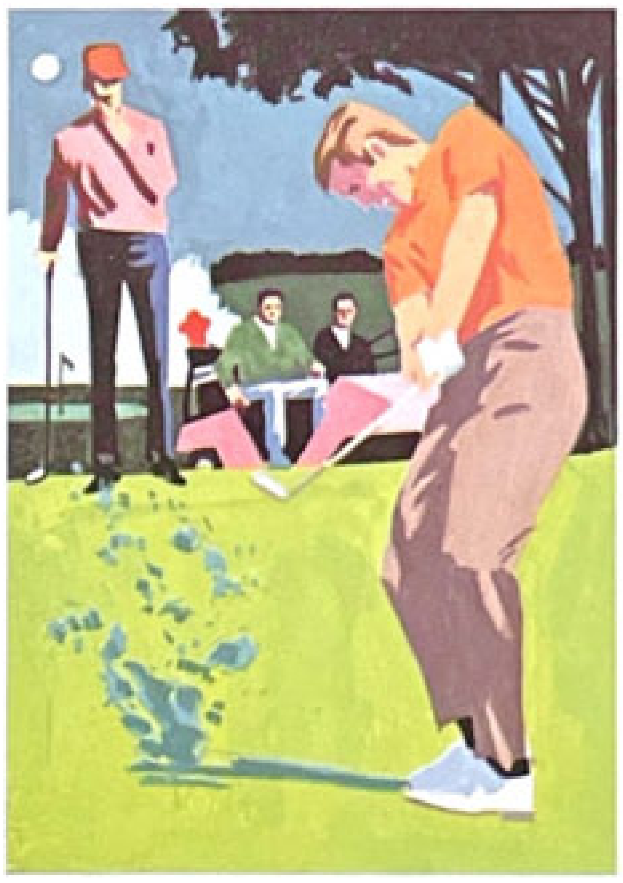
This little picture was painted with black and white designers colors and grays resulting from mixing the black and white paints. It has a good value arrangement. There is a "full range of tones" from lightest to darkest.



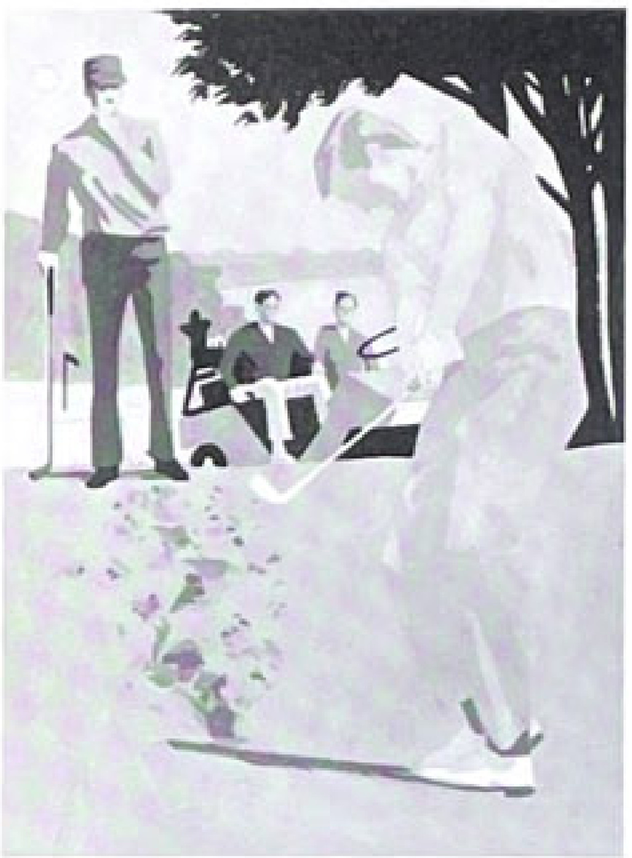
Here the black, white and gray value sketch has been translated into color. Note that the value (lightness or darkness) of each other is identical to the lightness or darkness of the gray paints in the first sketch. The result is good.



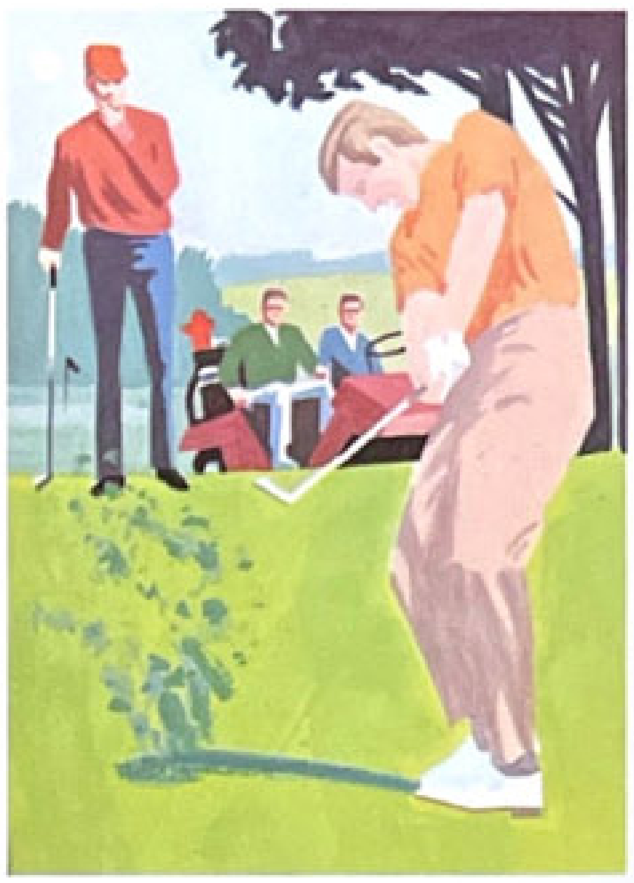
This value sketch is not very successful. The strong dark tones are in the background on relatively unimportant items, the trees, the secondary figures and the golf cart. As a result, the main figure in the foreground looks dull and uninteresting.



Here is the result of the poor planning in the value sketch. There is too much contrast in the background; not enough contrast in the foreground. If the values are wrong, the addition of color won't help.



Another weak, poorly organized value sketch. The artist seemed afraid to use any strong dark values; the total picture looks gray and washed out.



An artist's color work will never be any better than his value work. The color painting has a weak, washed out quality because the value of the colors were not planned correctly. This picture lacks contrast. It does not have a good range of value.

A Painting in Progress

On the next few pages you will see the development of a painting done by a successful graduate of Art Instruction Schools. We photographed John Berkey's progress as he painted in his studio.

One pleasant sunny afternoon John Berkey went out and shot a roll of film. On a cold December day, he used his photos as inspiration for a painting. He did not copy the photos. Instead, he took interesting parts from two photos. His final work looks like a painting . . . not a copy of a photograph!

Altogether we have eight steps of this painting in progress. Yet, we want you to think of painting a picure as a sequence which has four distinct stages. Here are the four stages to consider: (1) The planning stage; (2) The color lay-in; (3) The structural definition, and (4) The finishing of details.

On this page you see John's picture in the planning stage, where he organized the subject matter for his picture. He studied his photos, taking something of interest from each. He experimented with different aspects of the photos in his small pencil sketches. The criss-crossed lines on each sketch helped him avoid placing any major elements directly in the center of the picture. It is generally considered poor judgment to "plop" a major pictorial element directly in the center. He selected his favorite sketch and experimented with value arrangements.

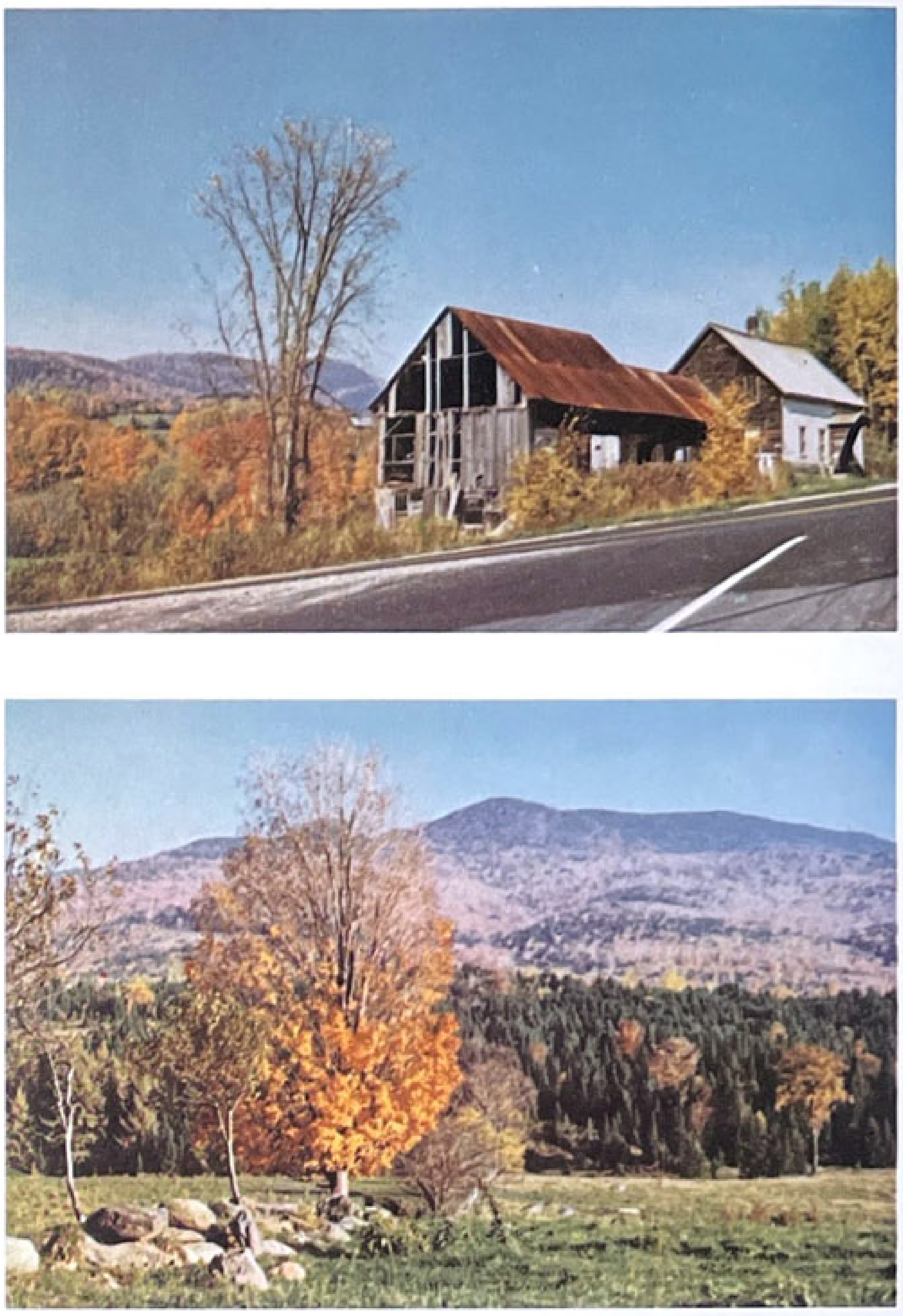
When John had completed his value studies, he made a line drawing the size his final painting would be. He then transferred this line drawing to a sheet of illustration board.

After the line drawing was on the illustration board, John put masking tape around the edges of the area he was going to paint.

Steps one, two and three on the following pages show the first lay-in of color. Each area — sky, hills, trees, barns, grass and rocks — is painted with the approximate middle value or "all-over color." Highlights and shadow accents come later.

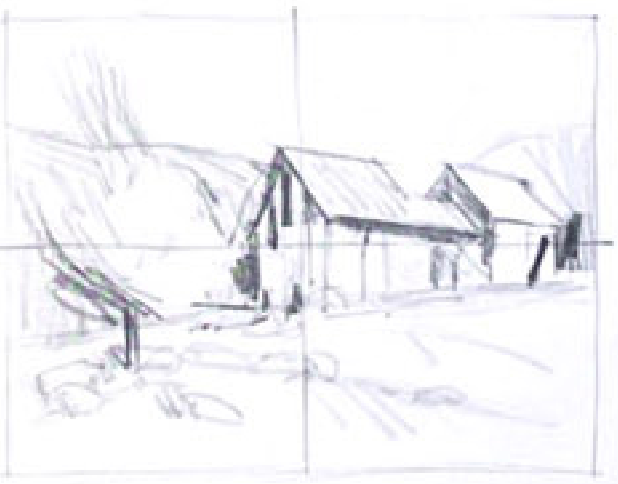
Steps four and five show the artist bringing out the form and structure of the various elements in the picture. The relationship of the colors and values established at this stage of the painting will not be greatly changed even in the final version.

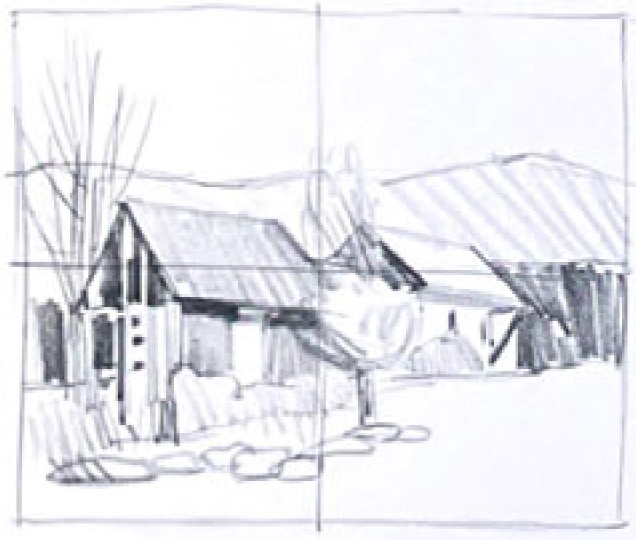
The last three pictures show the artist finishing, adding and subtracting of details, making minor changes and adjustments and so on.

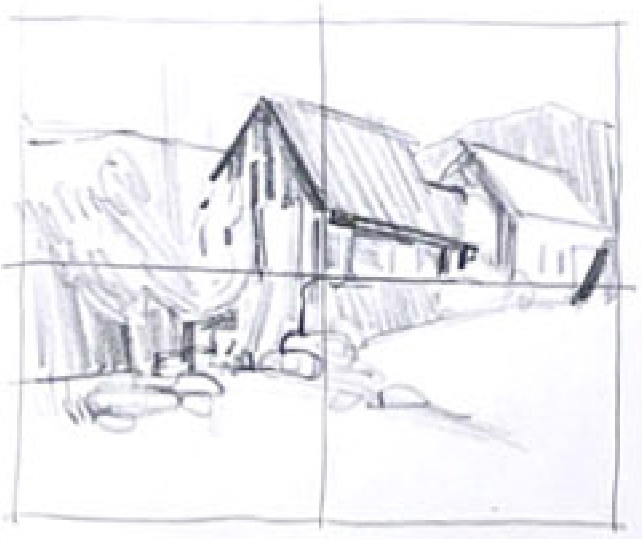


These are the two photographs John used. From them he selected the objects for his painting.

John Berkey painting in his studio.

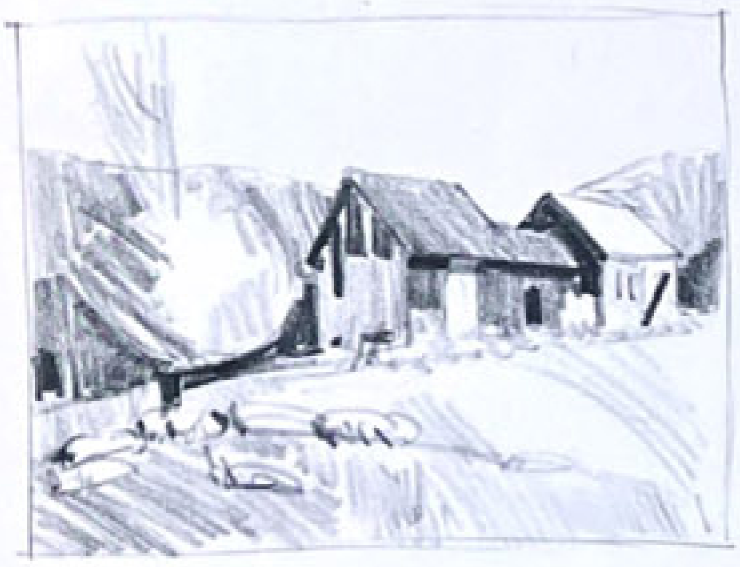




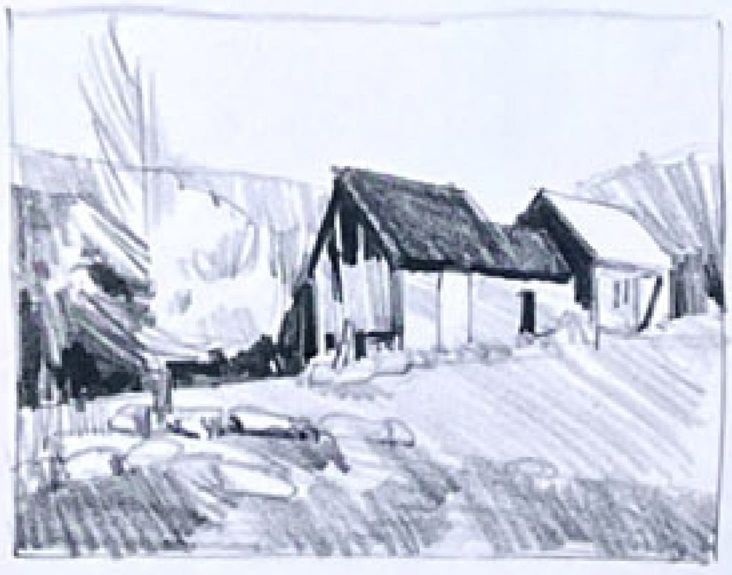


John worked out several idea sketches first.

After he selected his favorite sketch he worked out two value studies. This part of the planning is very important. He wanted to be sure the picture had good contrasting values and that the subject of the picture (the barn) stood out.



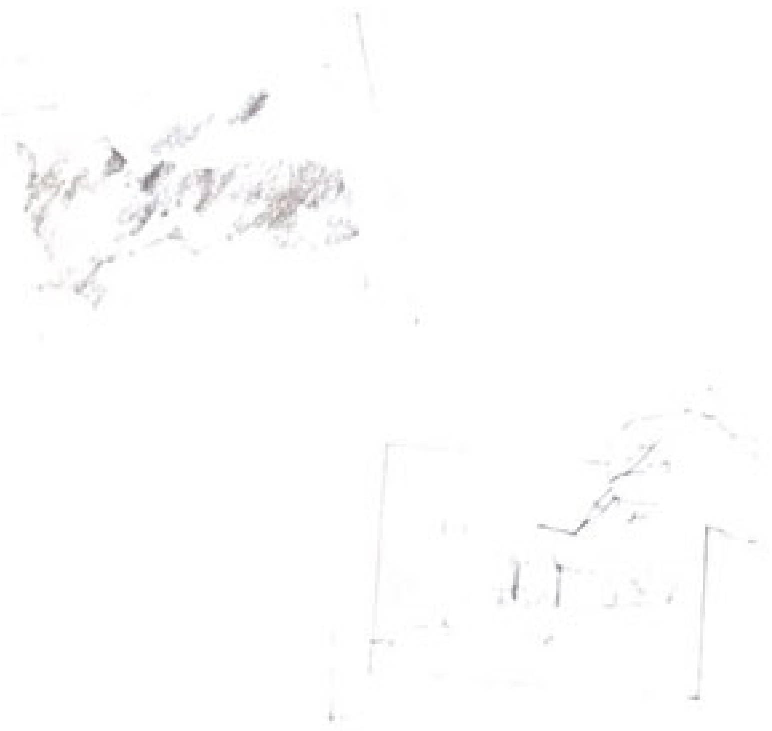
On his first study, the barn ended up to be too dark. It seemed to fade into the background.



The second study shows how he lightened the front of the barn and darkened the roof. These changes made it stand out properly.

First he blackened the back of his line drawing with the side of his 2B pencil.

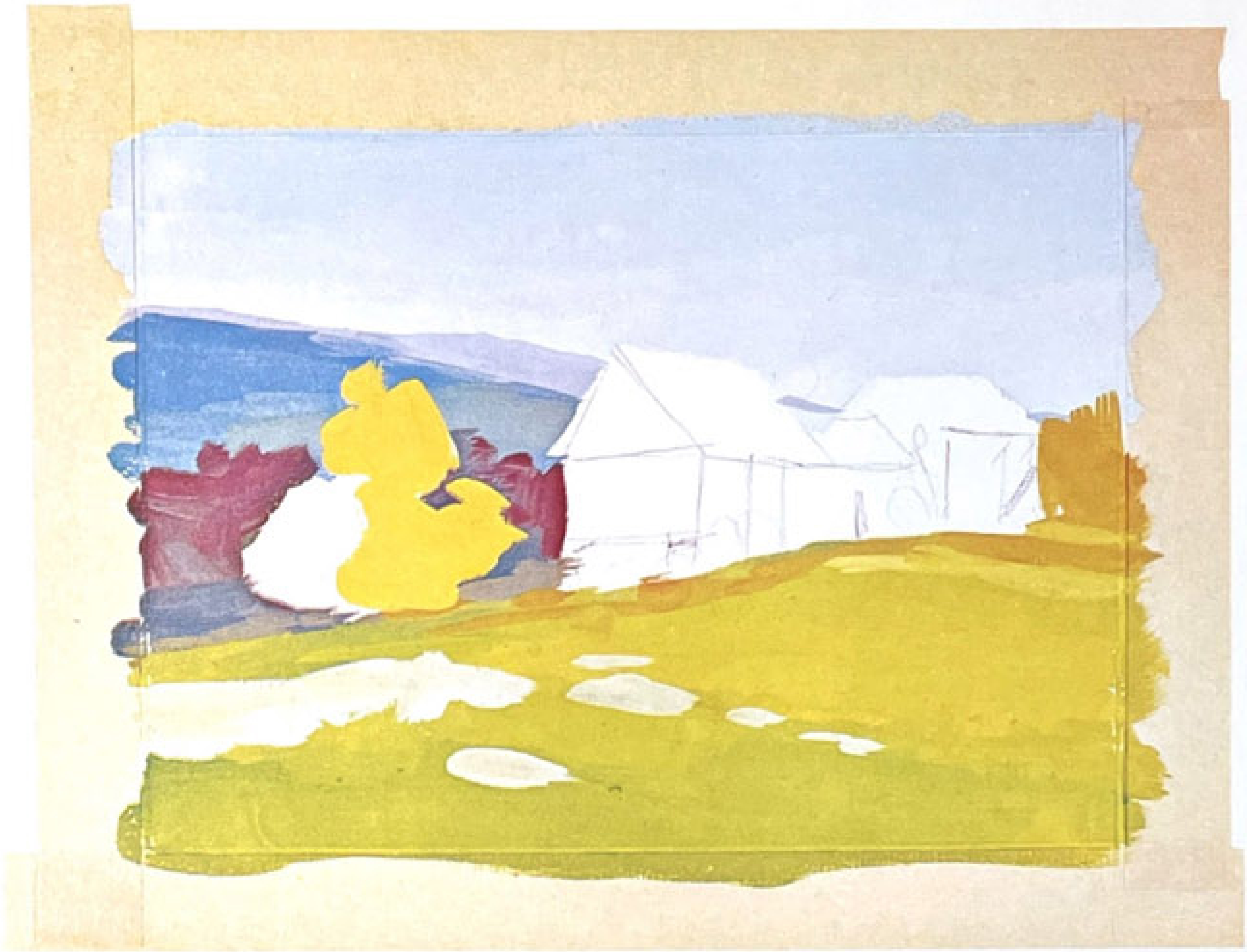
He transferred his line drawing to the illustration board by retracing over his line drawing. The lead on the back left a nice clean line on his board.



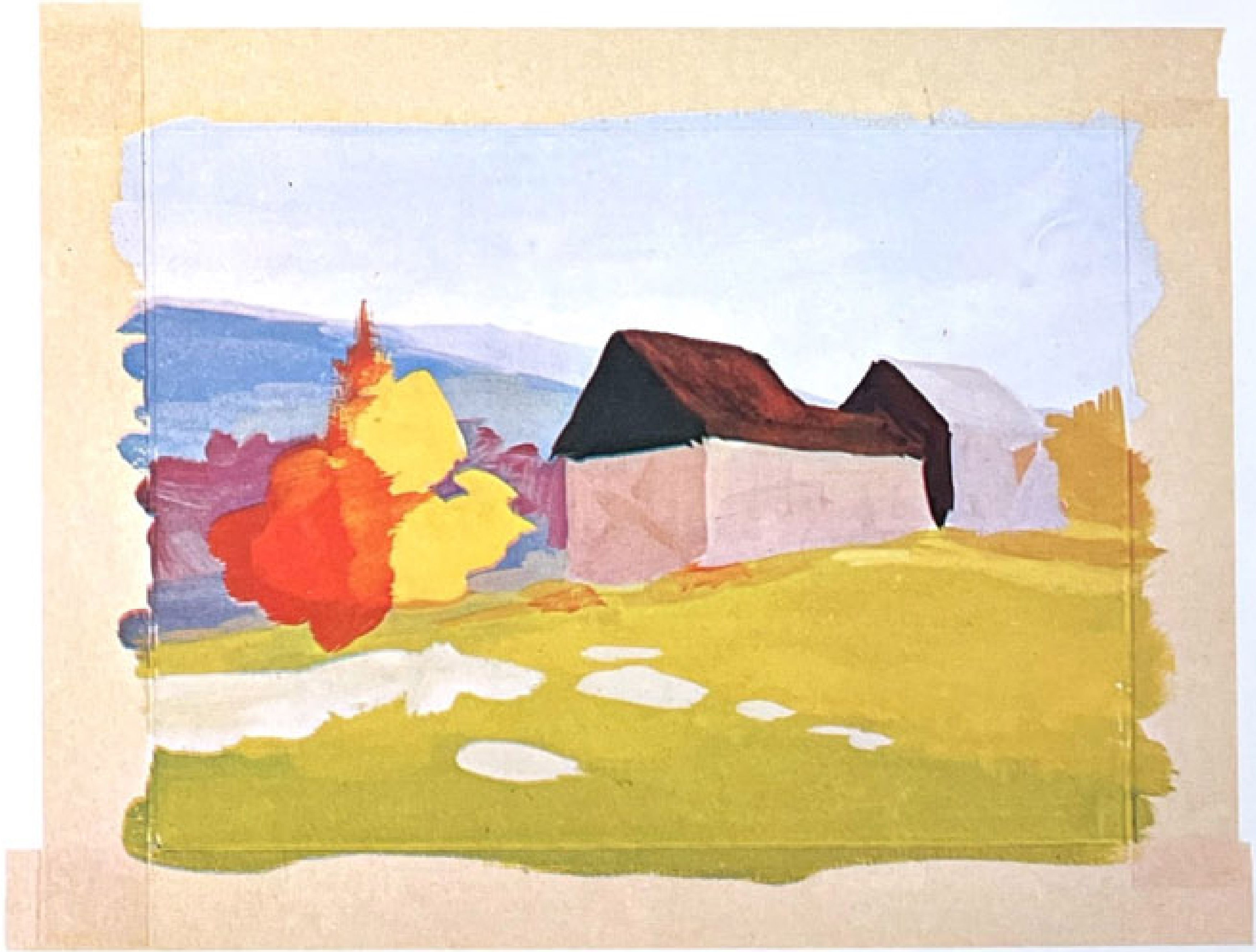
Red mixed with green and a little yellow gave John the barn roof color. He added white to the mixture and had the color for the front of the barn.

Red-violet, blue, red and white, mixed in various proportions, give him the colors for the mountains.

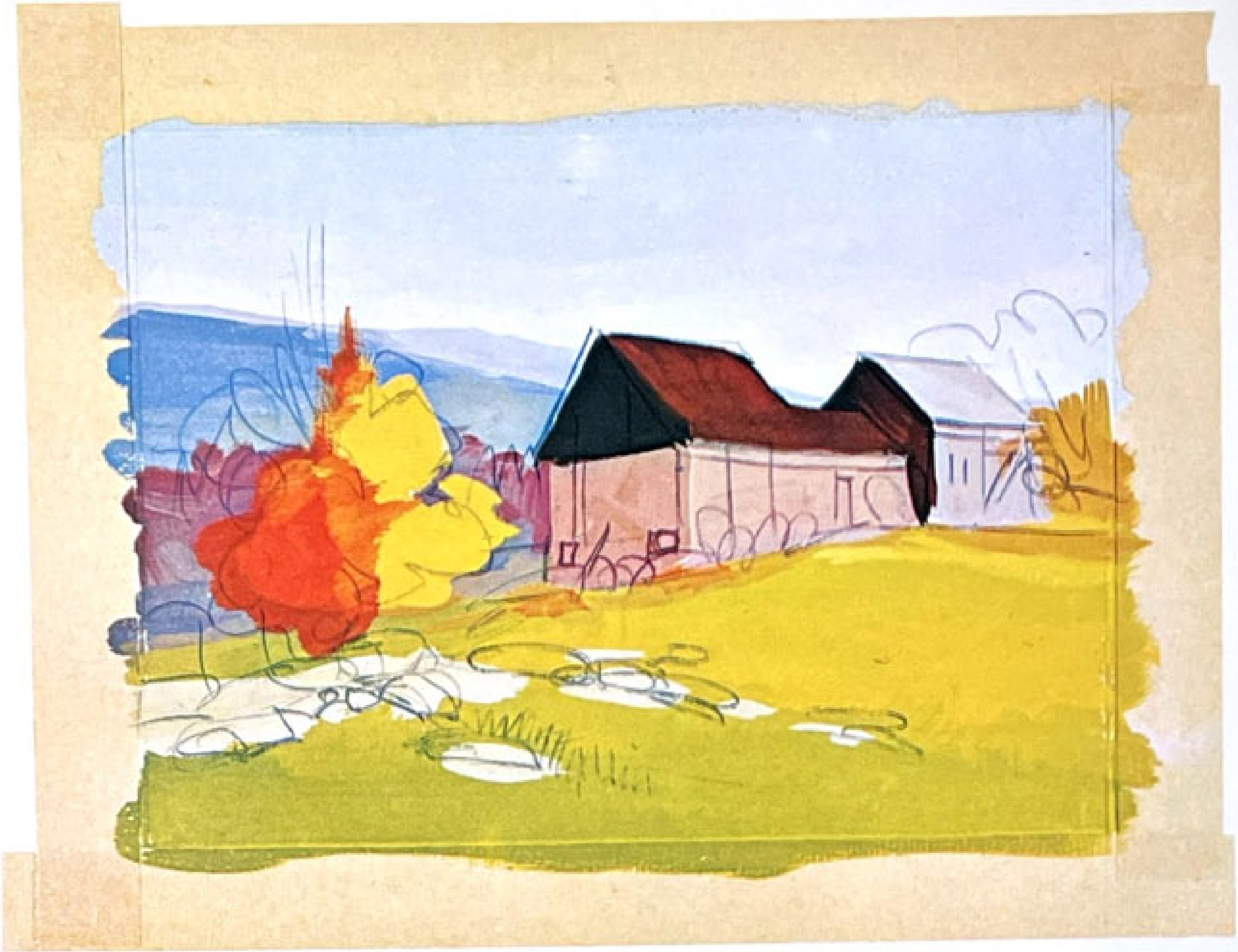
Various proportions of yellow, blue and white were used for the grass field colors. The same mixture as was used for the barn roof, plus more yellow and some white, gave John the tan color for the trees on the right and some of the grass areas.



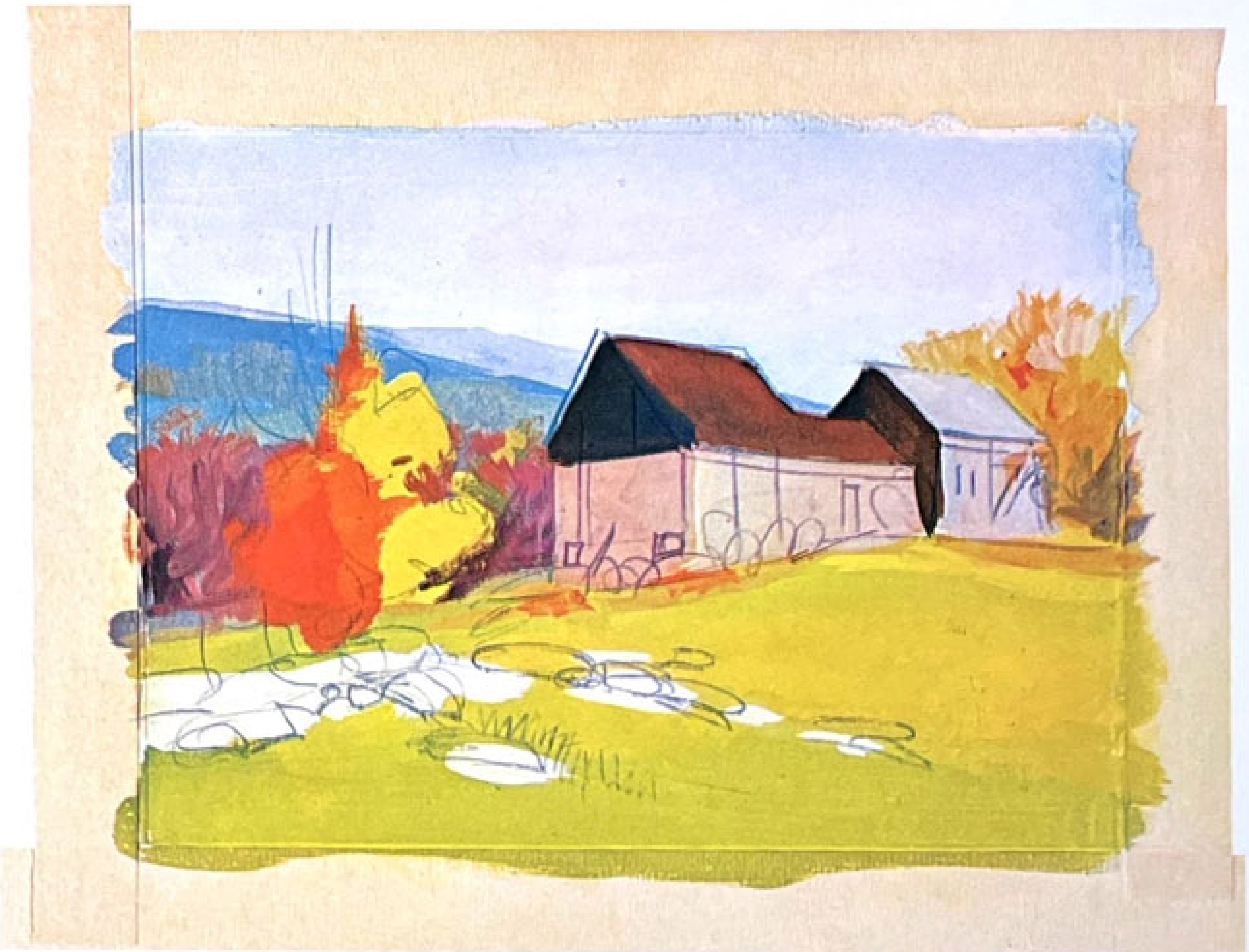
Step one: John started by transferring his pencil sketch to his illustration board. He then put masking tape around the edge of his picture. With a big brush, John laid in the sky and land areas of the picture. His objective was to get the total surface covered with color just as quickly as possible. He attempted to get the general color of each area, the middle color value, not its darkest or lightest accent. He referred to his pencil value sketch to help him mix the right value of color for each area.



Step two: The lay-in continued. The barn and yellow maple tree are painted boldly. The correct painting procedure is to work from the largest shapes to the smallest shapes; to paint from the back to the front (always do the sky and distant hills, before objects or trees in the foreground).



Step three: When the paint dried completely, John placed his line drawing over the picture and retraced the shapes of the barn, rocks and some of the trees. During the first color lay-in, the pencil lines were covered over with paint. Dropping the line drawing back over the painting and retracing the lines redefined the subject as it was originally planned.

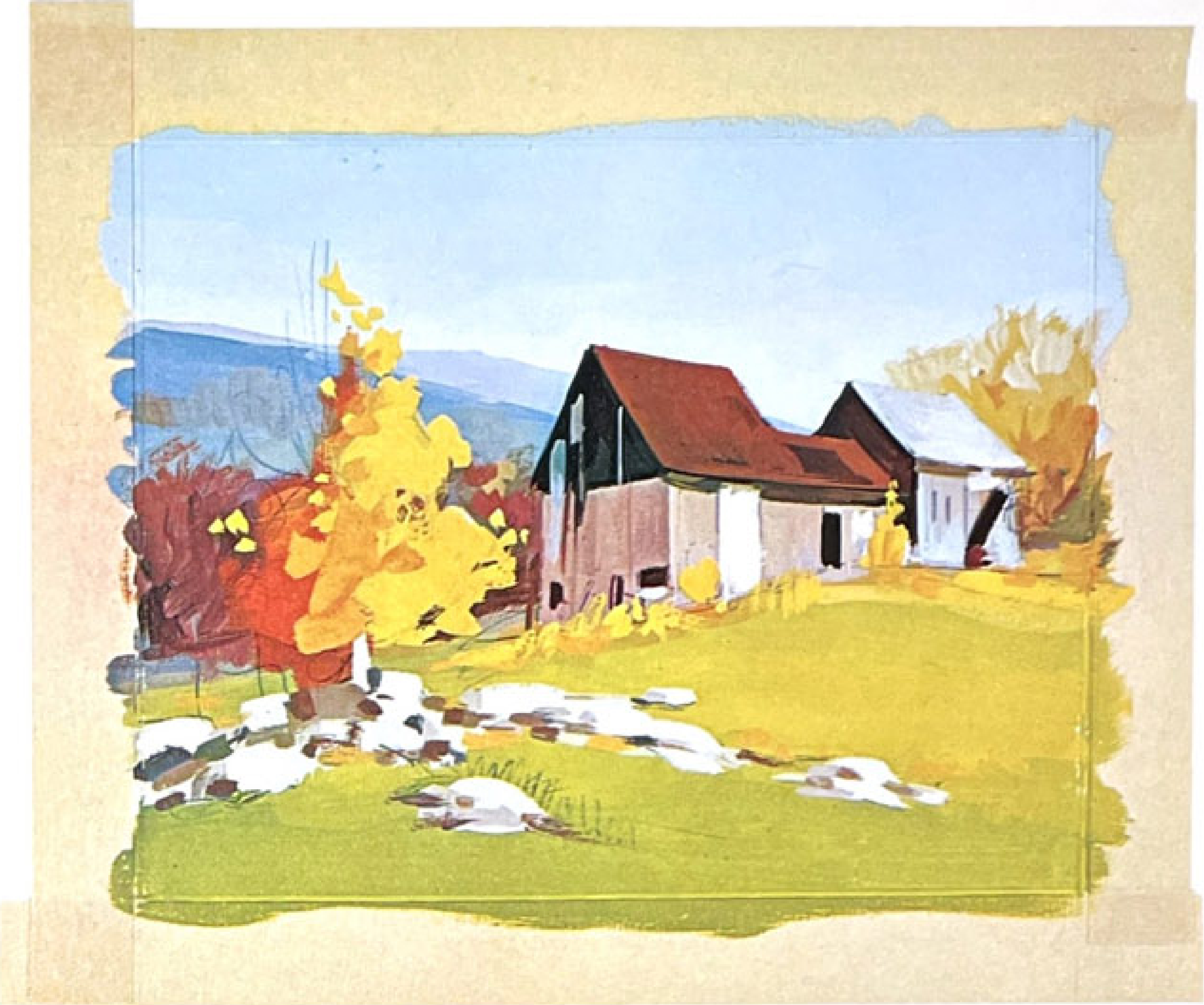


Step four: A check with his pencil value studies told the artist that he needed to change some of his color values. Here he darkened the trees behind the barn. The new contrast gives better definition; it makes the barn stand out more clearly. Enlarging the size of the yellow tree mass behind the smaller barn also helps the feeling of space and depth in the picture.

Obviously, there are *no sharply defined stages* in the painting of a picture. One stage flows directly into another from the moment the first brush strokes are applied. But, as a student, it is wise to use the four arbitrary stages mentioned earlier as mental stop signs. They can help you determine whether you are doing the right thing at the right time. For example, many beginners are anxious to start rendering small details in a painting before they do anything else. They know details give a feeling of realism. But, if details are started before the big color relationships are established, the picture will never have a solid, convincing quality. Therefore, you will be assured of better work if you try to follow the four stages we have suggested.

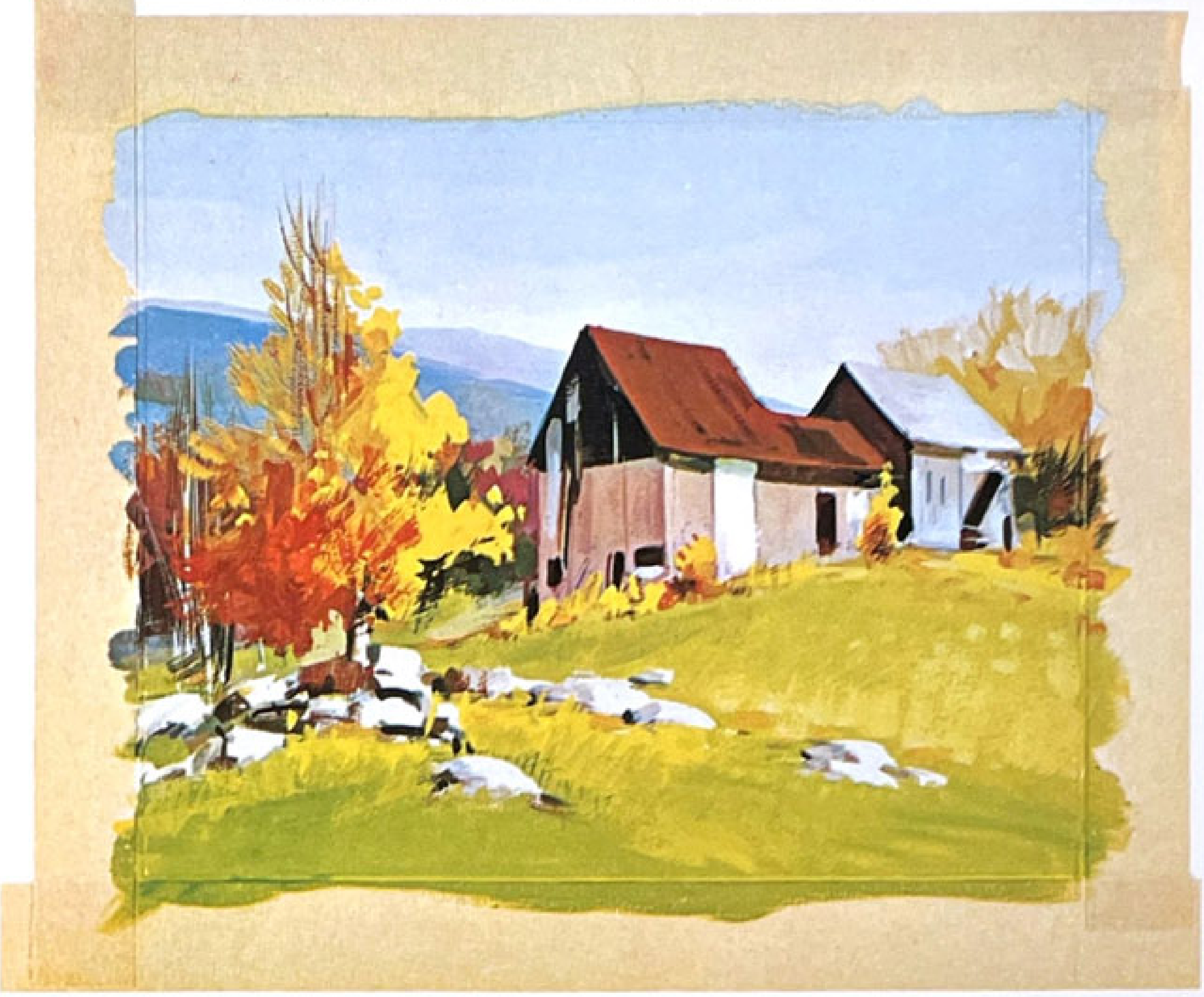
Now let us continue looking at what John Berkey did and how he did it.

Dry-brush technique is lightly brushing paint over the surface, allowing the color underneath to show through. The paint in the brush should be partially dry or on the thick side. Test a stroke on a piece of scrap paper first to be sure you are getting the desired effect.

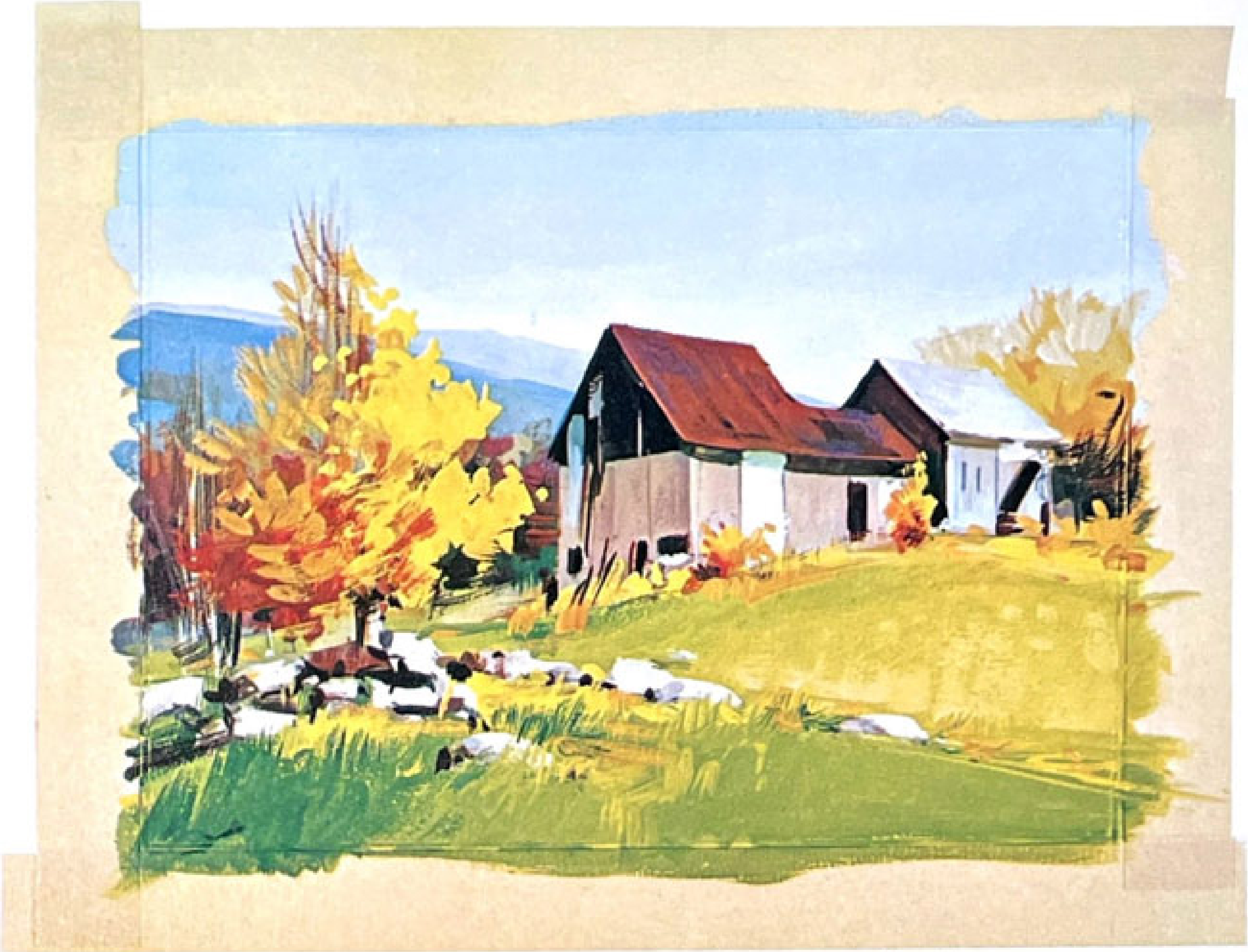


Step five: An all-important stage of the painting — this was the transition between the rough lay-in and the "finishing" or addition of details. The new colors and values brought out the form and structure of the various subjects in the picture. The large patterns on the barn, just painted, must not be destroyed or lost even if the artist were to decide on painting the wood grain of every single board!

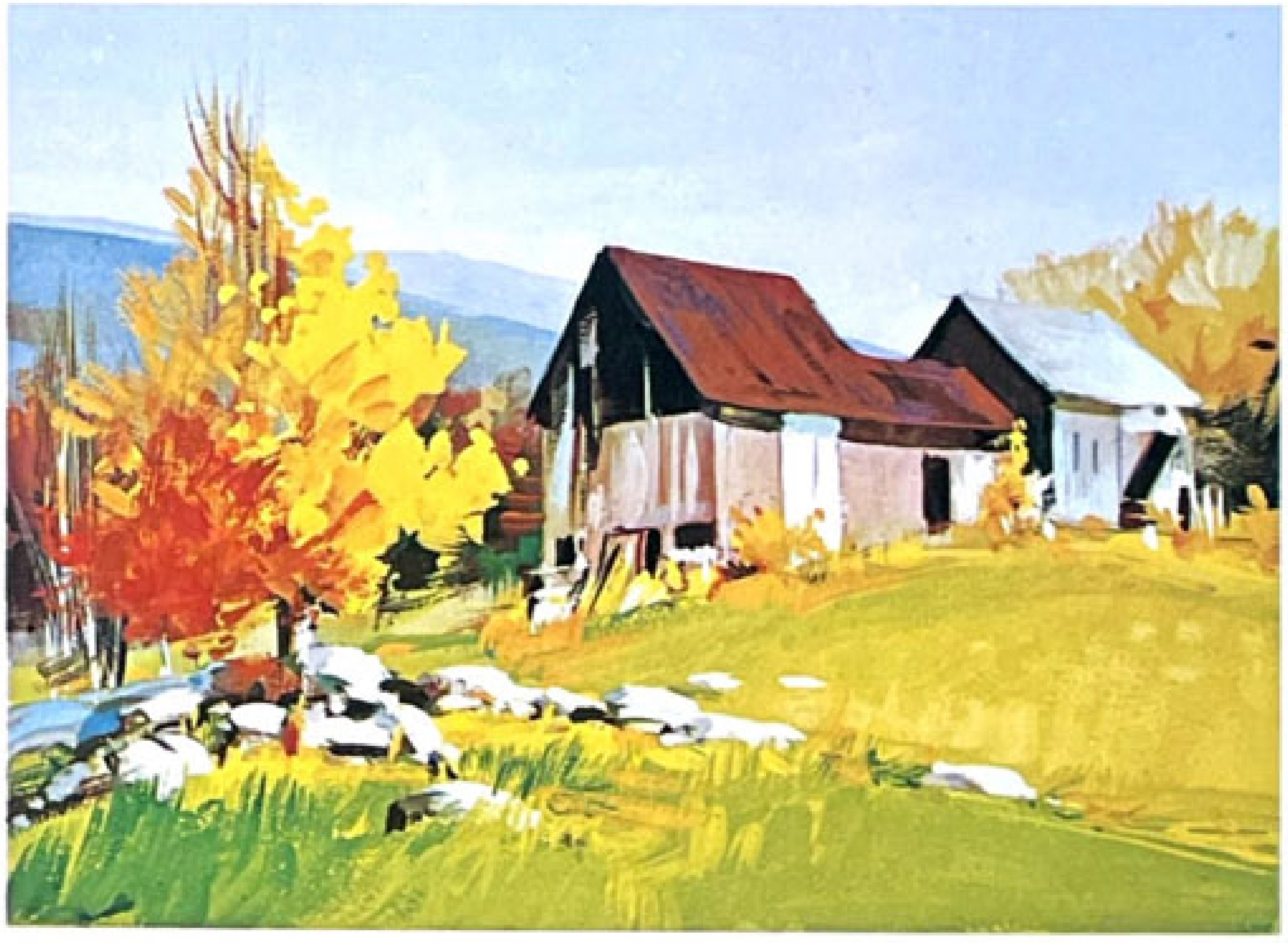
The *relationship* of colors and values the artist now has decided upon will be the ones he wants in the finished picture.



Step six: New color and value changes in the foreground grass area brought out the fall and rise of this sloping land. The addition of white birch on the right side of the picture separates the yellow maple better from the mass of trees behind it. Some careful brush work on the rocks defines them so that they no longer looked like "blobs" of paint. Dry-brush textures on the golden maple gave a new feeling of leafy foliage to this tree.



Step seven: The nearest rise of land in the foreground has been repainted and darkened, slightly. Dry-brush strokes suggested the wild weed growth around the rocks. More dry brush and muted yellow colors on the maple in the foreground added to its realistic appearance. The shadows under this tree, on and around the rocks have also been clarified.



Step eight: How do you know when a picture is finished? When do you stop before you ruin the fresh quality of your earlier work? The answers depend on each artist's taste and temperament and rendering skill. Note that John did not add details to the barn roof, even though the photos show definite stripes of color in this area. He felt he had enough texture and color variation in the picture and that more details on the roof would detract from rather than improve the total effect of the painting. Deciding where detail should be added and where it is left out comes with time and a lot of painting.

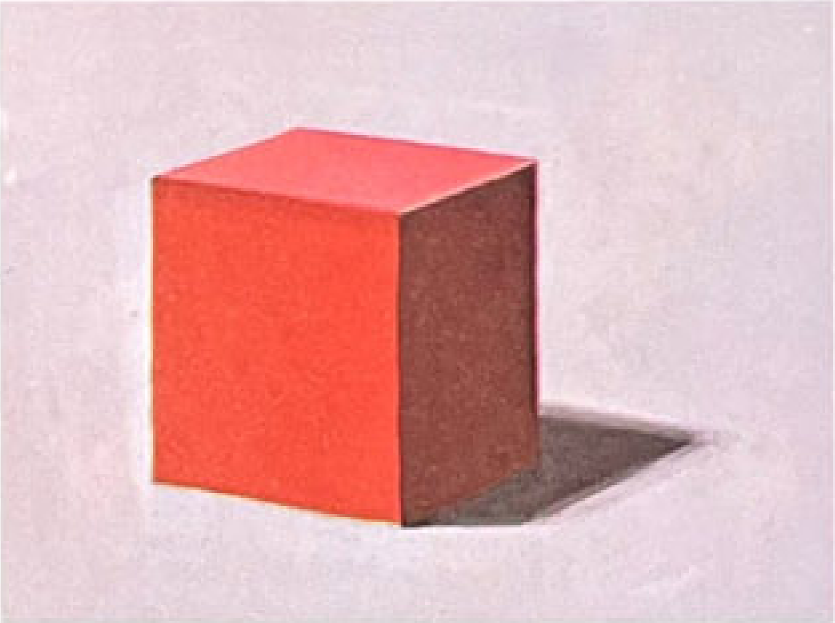
Observing Colors in Nature

Through the ages artists have tried to duplicate colors and values as they appear in real life. This is a difficult task. But, we can make some observations about the colors in nature that will be eye-openers to you and help you with your development as an artist.

Let's look at a common mistake in observation. For example, you will rarely find stark black shadows in nature. You will seldom see pure white or pure black except on objects which are either white or black. Let's develop that idea further. If you carefully study the shadow side of a red barn, you will see that the area in shadow is still red. It will be a dark shade of red, but it is still red. No matter how deep the shadows, there will always be a trace of the red color . . . it will never be solid black. It is the artist's job to look for that color and try to duplicate it.

Because of faulty observation, many students overuse black. When trying to match the dark red you observe on the shadow side of the red barn, add red's complement (green) to your red to gray it down. Then add a *small amount* of black if you need to deepen the tone. Use black sparingly. Never let black overpower your color.

1. This painting of a cube has various tones of red, but actually the cube from which it was painted is all one color. Because of the way light is striking the actual cube (the light is coming from the left), each side receives a different amount of light. The lightest red appears where the light is strongest. The darkest red occurs on the side in shadow. The various surfaces of an object will be either light or dark or somewhere in between. This is determined by the amount of light striking them.



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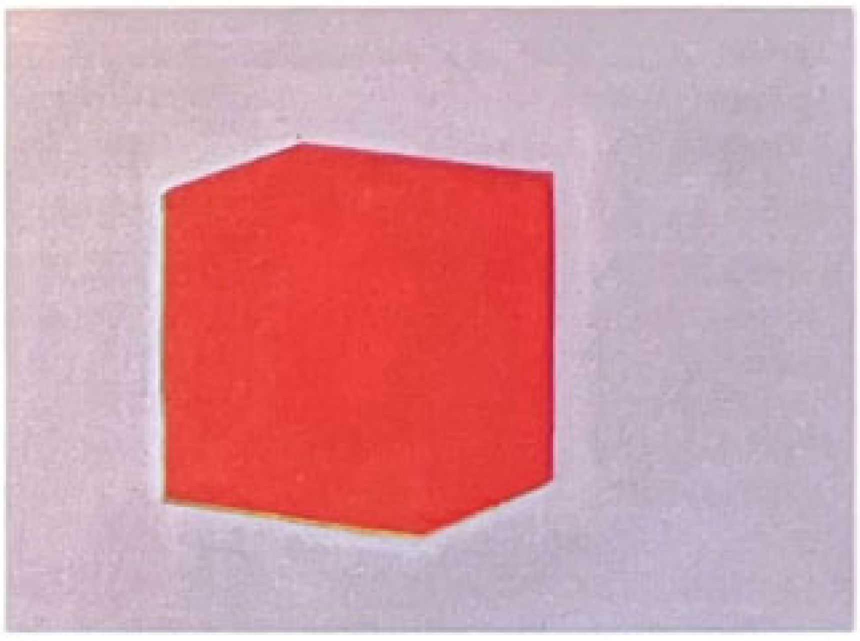
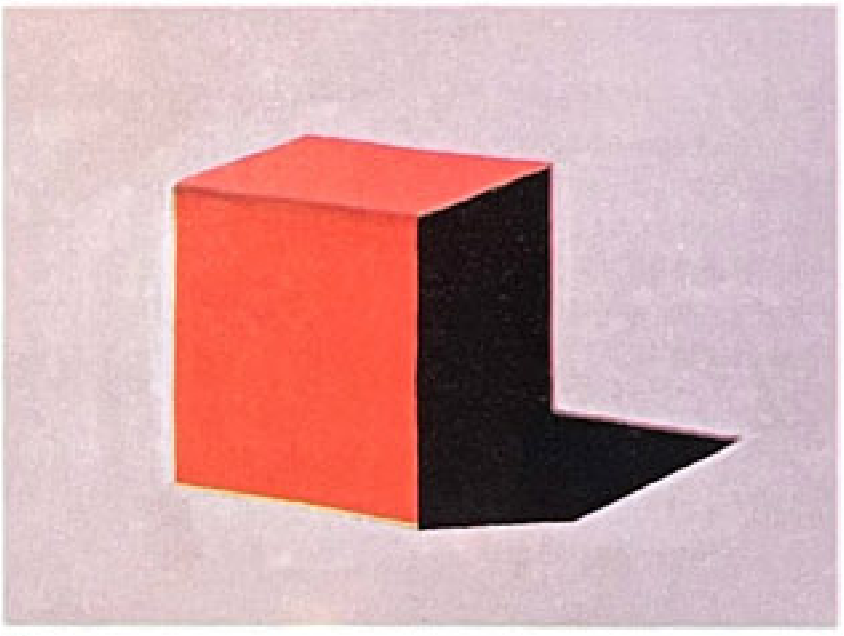


2.

2. If light were to flood the cube from all directions at the same time, there would be no shadows. The cube would appear flat and formless, as it does here.

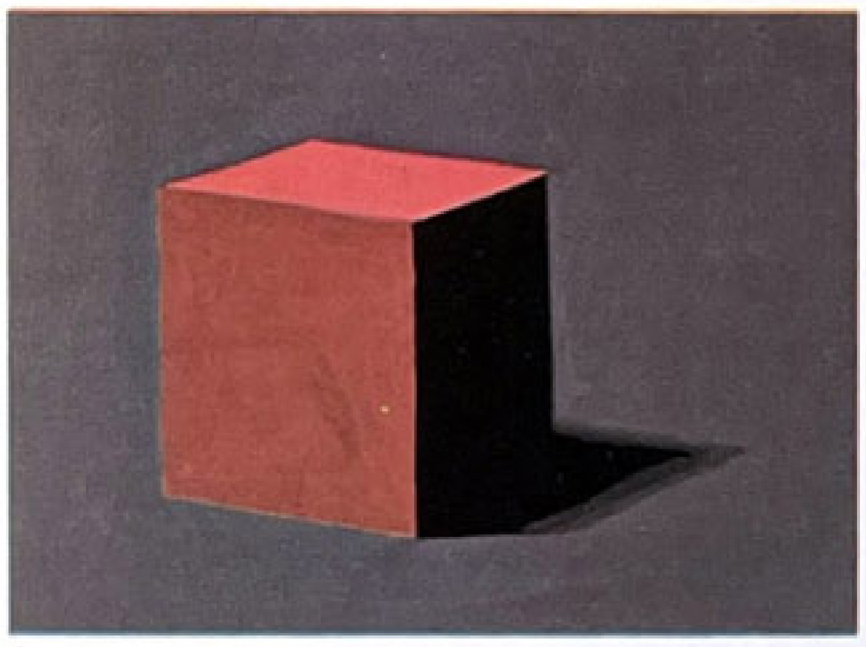
3. Shadows will *never* appear black as we have illustrated here. There will always be evidence of the object's color in the shadow area of the object.



3.

4. Even when light is as dim as it is here, the shadows will *not* appear black as we have made them.

5. Even in the deepest shadow area there will be at least a hint of the object's color.



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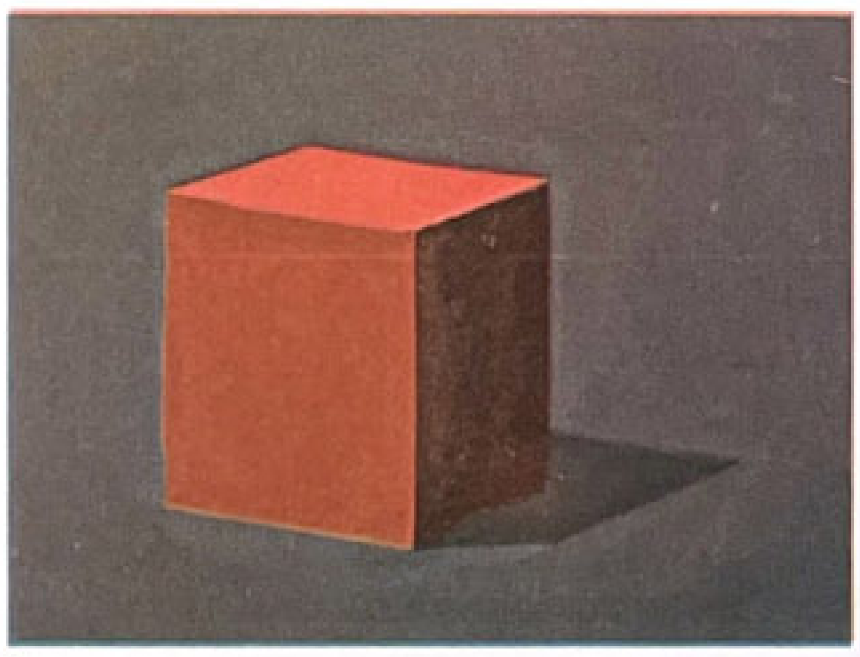
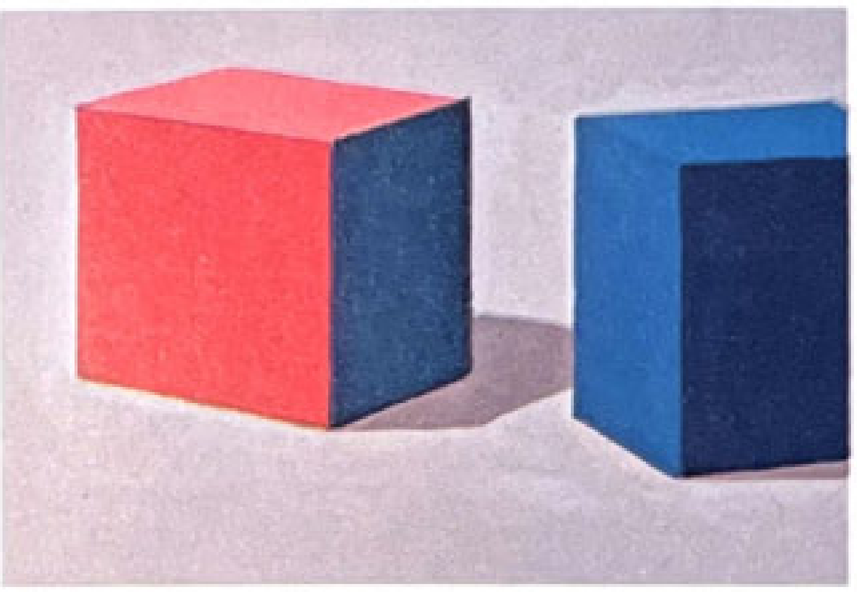


5.

Reflected Color

Reflected color results when the color of one object reflects onto the surface of another object nearby. Let's say you have two objects sitting next to each other. One object is red; the other is blue. Depending on which way the light is shining, the color of one object will reflect onto the surface of the other. This reflection will change the appearance of the colors you see. As an example, let us say that the blue object is reflecting some of its color onto the red object. The tendency here is to make the blue reflection (on the red surface) too strong or to ignore it all together. Actually, the two colors mix on the red surface, giving this surface a red-violet color.

1. The blue color reflecting back onto the red cube is much too strong. It appears as if the one side of the red cube has been painted blue.
2. Just a hint of the reflected blue can be seen on the red cube, giving the one side a slight red-violet cast.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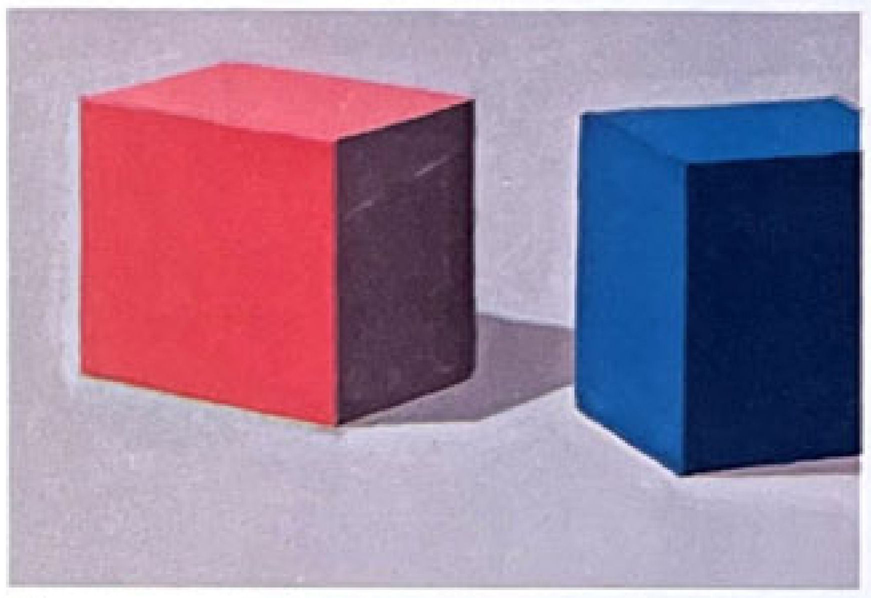

2.

Indoor-Outdoor Lighting

Did you ever wonder why the cast shadows on the snow have such a bluish look to them? This is because of two things: First, the sun gives a warm light, a light with a yellow-orange quality. In contrast, the shadows get their blue color from the reflection of the blue sky. When you paint a sun-lit landscape, summer or winter, think of this formula: warm light — cool shadows.

Natural indoor light is usually different. The light coming in the window (other than *direct* sunlight) is on the cool side. Interior shadows tend to be on the warm side. When you paint an indoor setting using natural light, think of this formula: cool light — warm shadows.

Artificial lights (incandescent and fluorescent lights) affect color differently. The incandescent light produces a warm light; the fluorescent light produces a cool light.

Whichever source is used to light the subject, natural or one of the two types of artificial light, the colors will appear different. Though we don't expect to see such subtle observations in your color work at this stage of your training, we thought you would like to know about these aspects of different types of lighting.

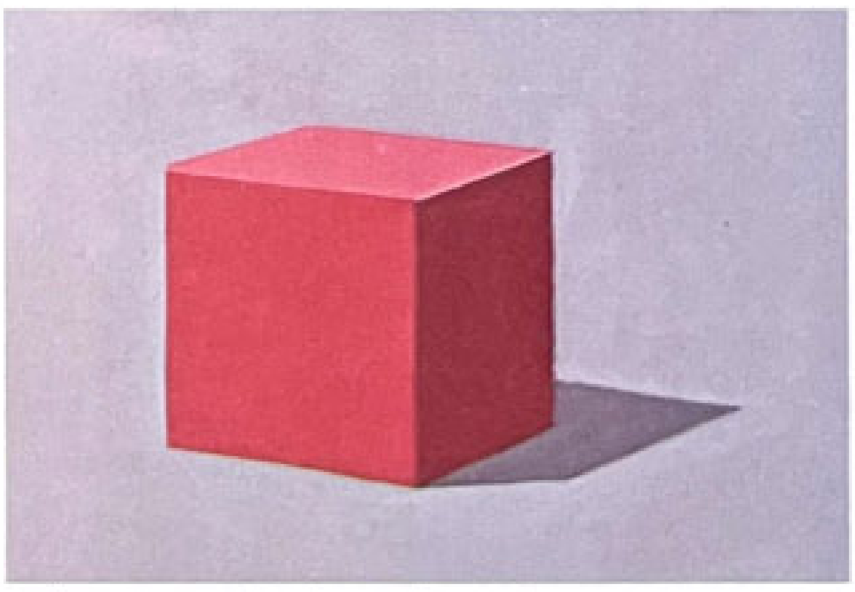
Indoor-Natural light (without direct sun): Note the cool look to the light and the warm quality to the shadows.

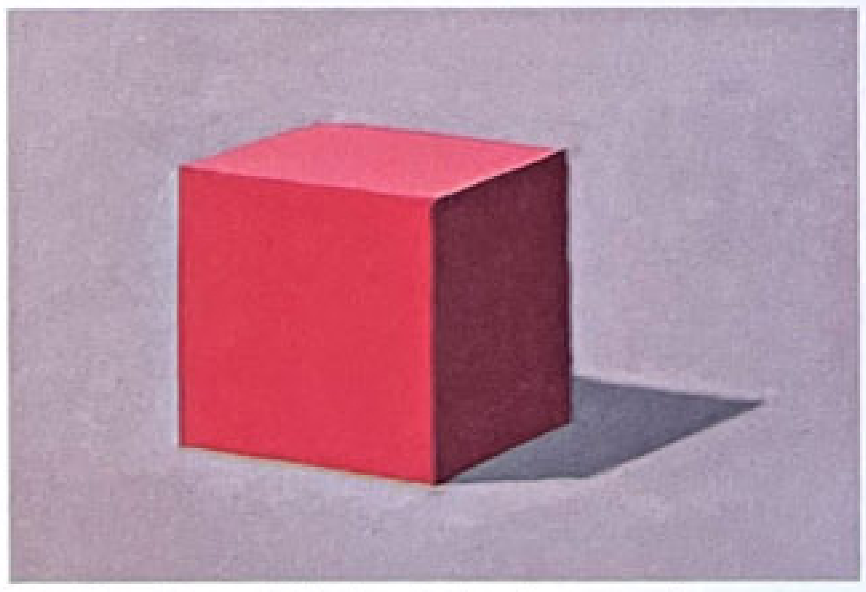
Outdoor-Natural light (with direct sun): The light has a warm quality. The shadows are cool. Remember, the shadowed areas are influenced by the blue sky color.

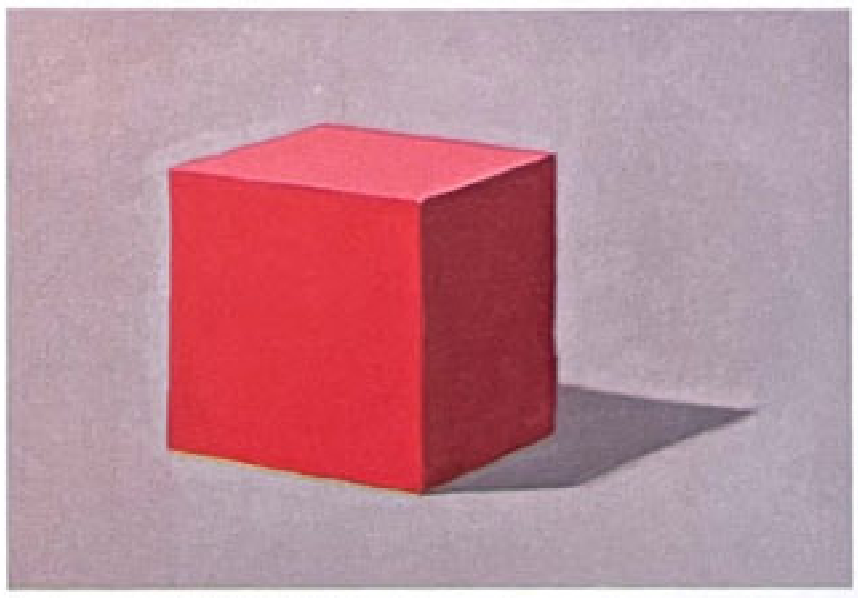
Indoor-Artificial light (incandescent): Incandescent lights give off a warm light. The shadows in this picture are warm too. The color of the room and the objects in it will determine whether the shadows are warm or cool.

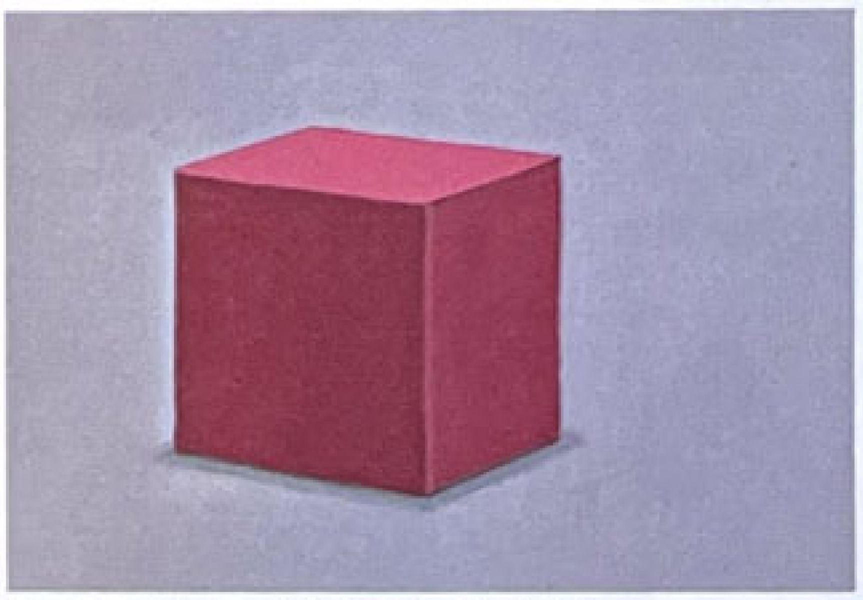
Outdoor-Natural light (cloudy day): Grayish-white clouds are the source of light here. This large cloud mass gives off a very soft, diffused light that is usually on the cool side. Our cube shows the results of this softness by being on the cool side and casting soft shadows.

When you are studying nature, see how colors appear under various lighting conditions. A red color, for example, can appear on the warm side under one condition and cool under another. Try to determine whether the color you are looking at is on the warm or cool side. Showing these differences in your pictures will enhance their quality immeasurably.


Indoor-Natural light (without direct sun)


Outdoor-Natural light (with direct sun)


Indoor-Artificial light (incandescent)


Outdoor-Natural light (cloudy day)

The Basic Color Schemes

Trying to decide on the colors to use for a picture can be a problem. Part of the difficulty arises when an artist is uncertain of the colors he wants to use. He may also fail to think about following any particular color scheme. He is then confronted with an endless choice of colors to pick from. In this section we will try to simplify your job of selecting colors by narrowing down the selection to six basic color schemes. There are variations of these six schemes, but for now let's talk about the six basic ones.

The Six Basic Color Schemes

Naturalistic: The naturalistic approach is used when you want to paint nature's colors as accurately as possible. You try to duplicate every subtle tint and shade just as you see it.

Complementary — cool: As you recall, complementary colors are across from each other on the color wheel. Orange and blue, for example, are complementary colors. They could be used in a complementary scheme. We will need more colors than just those two, however. The colors we add should be closely related to orange or blue or both. As an example, orange, blue, yellow-orange and blue-violet would make a good palette for a complementary color scheme.

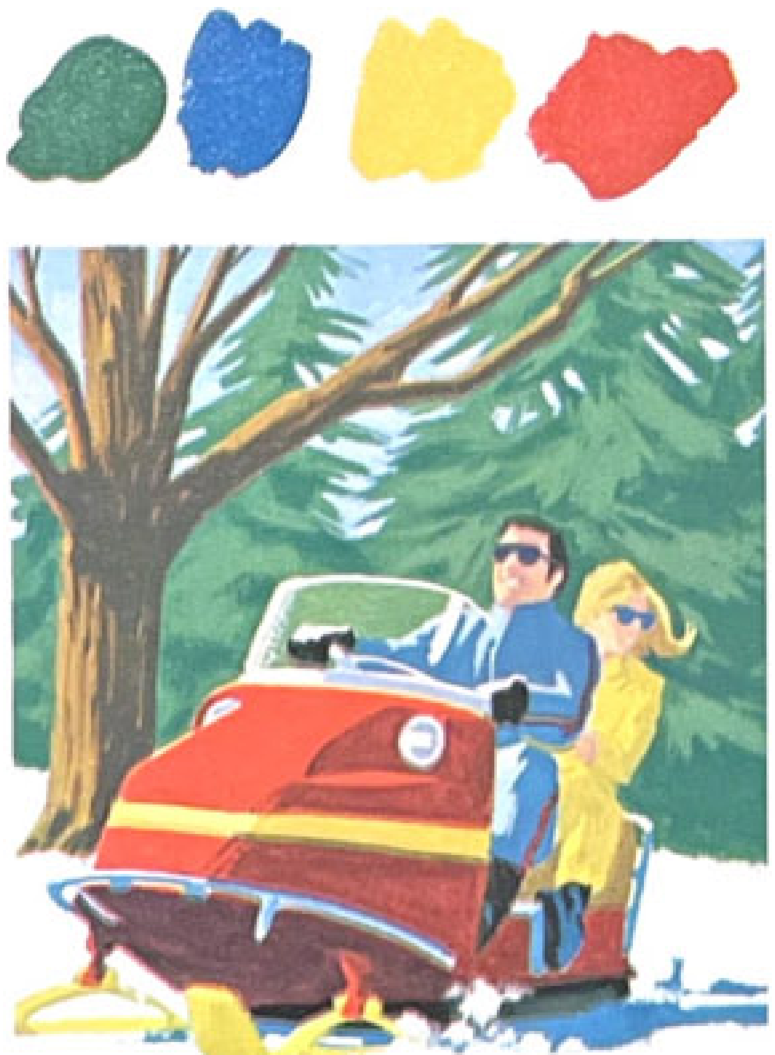
When the word "cool" is added to the word "complementary" it means the painting will be dominated by the cool colors of the scheme. Cool colors are colors dominated by blue; whereas warm colors are dominated by red. A cool complementary palette might look like this: orange, blue, blue-violet and blue-green. As you can see, the palette is dominated by the cool colors.

Complementary — warm: This scheme is quite similar to the previous one except that the warm colors dominate. The palette might include blue, orange, yellow-orange and red-orange.

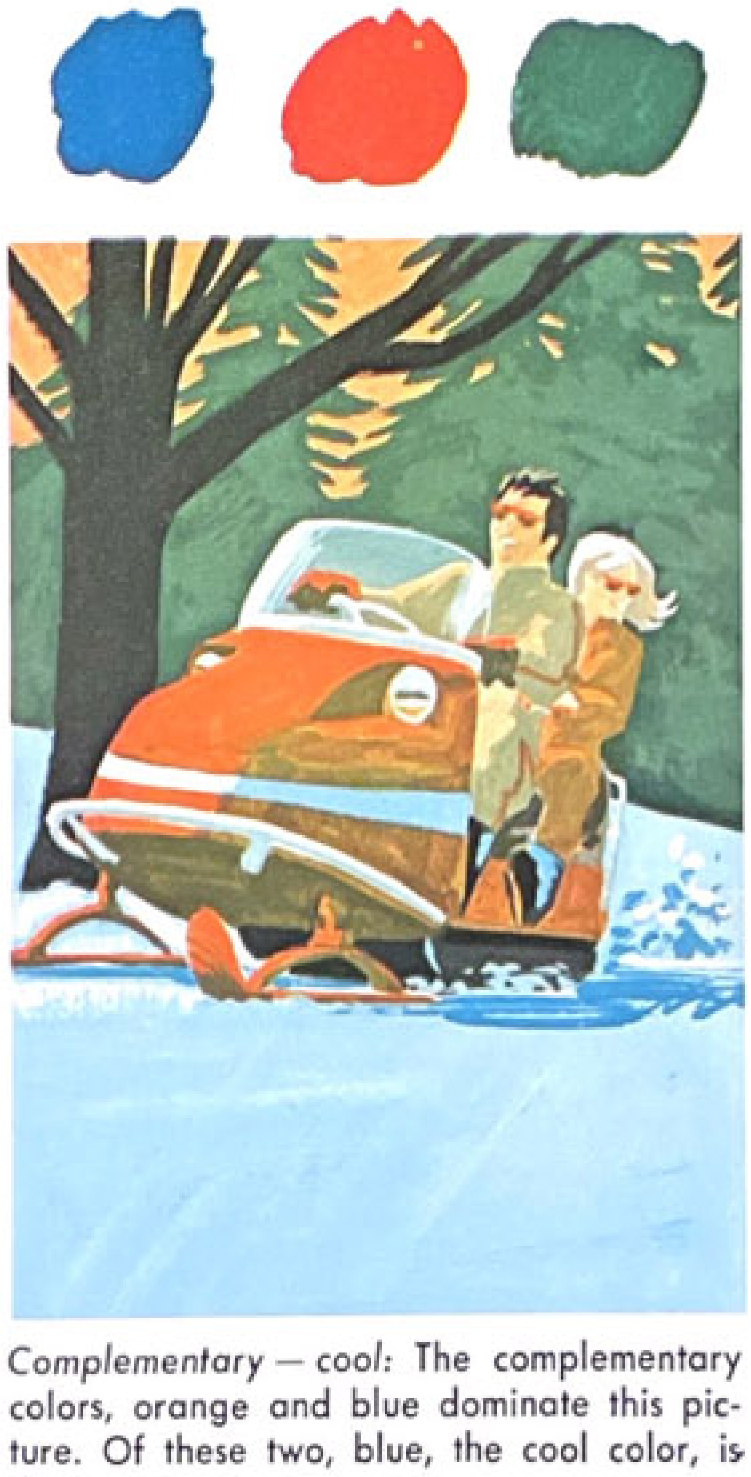
Analogous — cool: As opposed to a complementary color scheme an analogous color scheme is made up of colors that are very closely related on the color wheel. A cool analogous color scheme would have colors such as blue, blue-green, blue-violet and violet. Look at the color wheel to see where these four colors are located.

Analogous — warm: This scheme is made up of warm colors such as yellow, yellow-orange, orange and red-orange. Remember, in an analogous scheme all the colors are located close together on the color wheel.

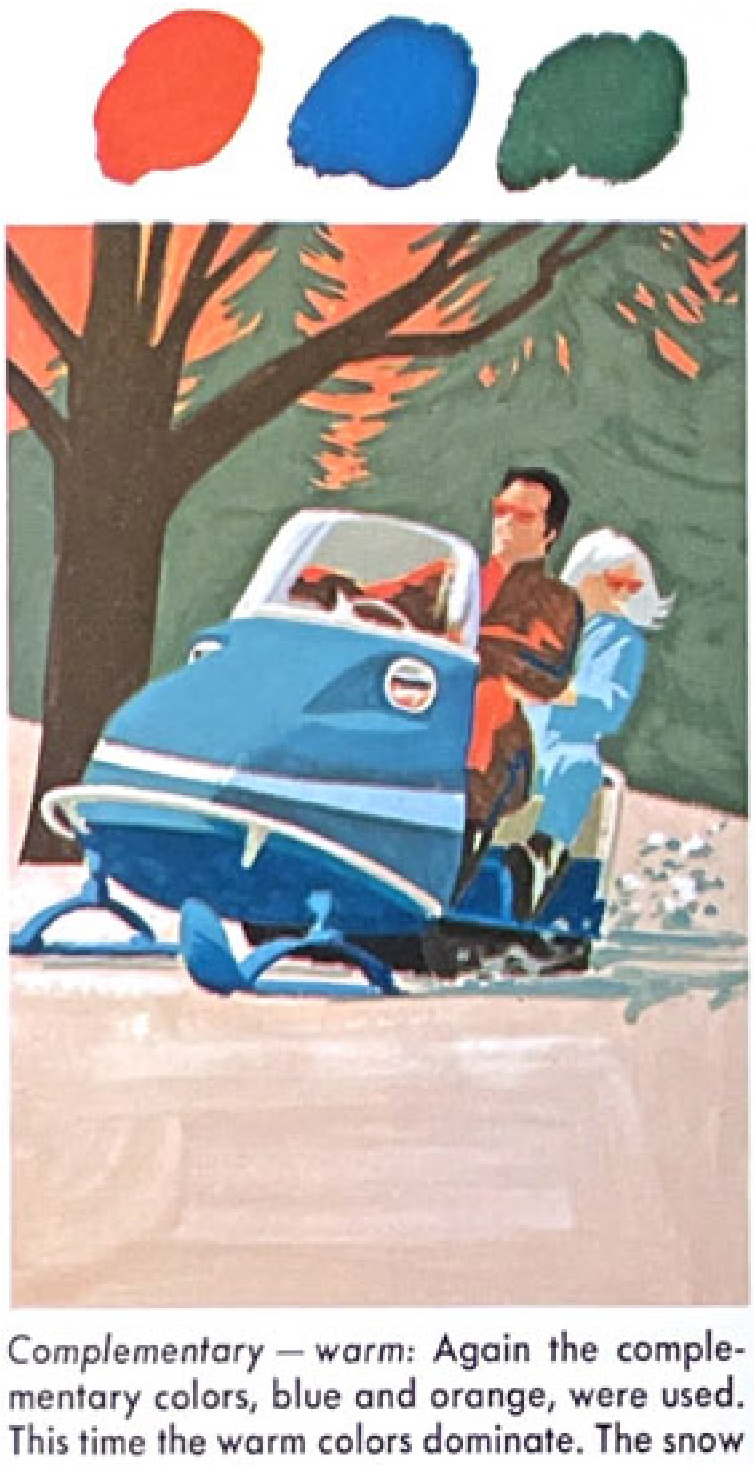
Analogous color schemes create a pleasing visual effect. We often see them used on wallpaper and fabric designs. However, we rarely find analogous color schemes used in pictures in their purest form. This type of scheme would be considered a little weak. A picture needs more richness, more variety. This can be accomplished by using a limited amount of contrasting color. The contrasting color should generally be a *complement* to one of the analogous scheme colors. For ex-



Naturalistic: With this approach we try to copy the colors in nature as accurately as possible.



Complementary — cool: The complementary colors, orange and blue dominate this picture. Of these two, blue, the cool color, is dominant.



Complementary — warm: Again the complementary colors, blue and orange, were used. This time the warm colors dominate. The snow is now a tint of grayed orange as opposed to the tint of blue used on the complementary-cool version.

ample, let's say we are going to use yellow, yellow-orange, red-orange and orange. Blue could be used as the contrasting color as blue is the *complement* of orange.

Theme color: This is probably more of a painting technique than an actual color scheme. It belongs here; however, because like the other schemes, using a theme color is a way of bringing color harmony to a picture.

A theme color is a color which runs throughout an entire picture. Let's choose orange and use it as a theme color. We will then make sure that orange is in all areas of our picture. This can be done in two ways. The first way is to mix various amounts of orange into *all* the other colors in the painting. The other way is to cover the entire picture surface with a thin layer of orange. After the orange dries completely, the other colors are painted right over the orange. It is not covered completely, however. The artist intentionally allows small amounts of the orange to show through the other colors.

Values

It is not only the simple color schemes that make each of the pictures on this page attractive; it's also their value arrangement. The subject of values has been covered earlier, but it is important enough to mention again. As you can see, each picture has a different color scheme. There is, however, something all have in common. The value arrangement is the same in each. If the values are good, almost any color scheme can be used.

Selecting a Palette

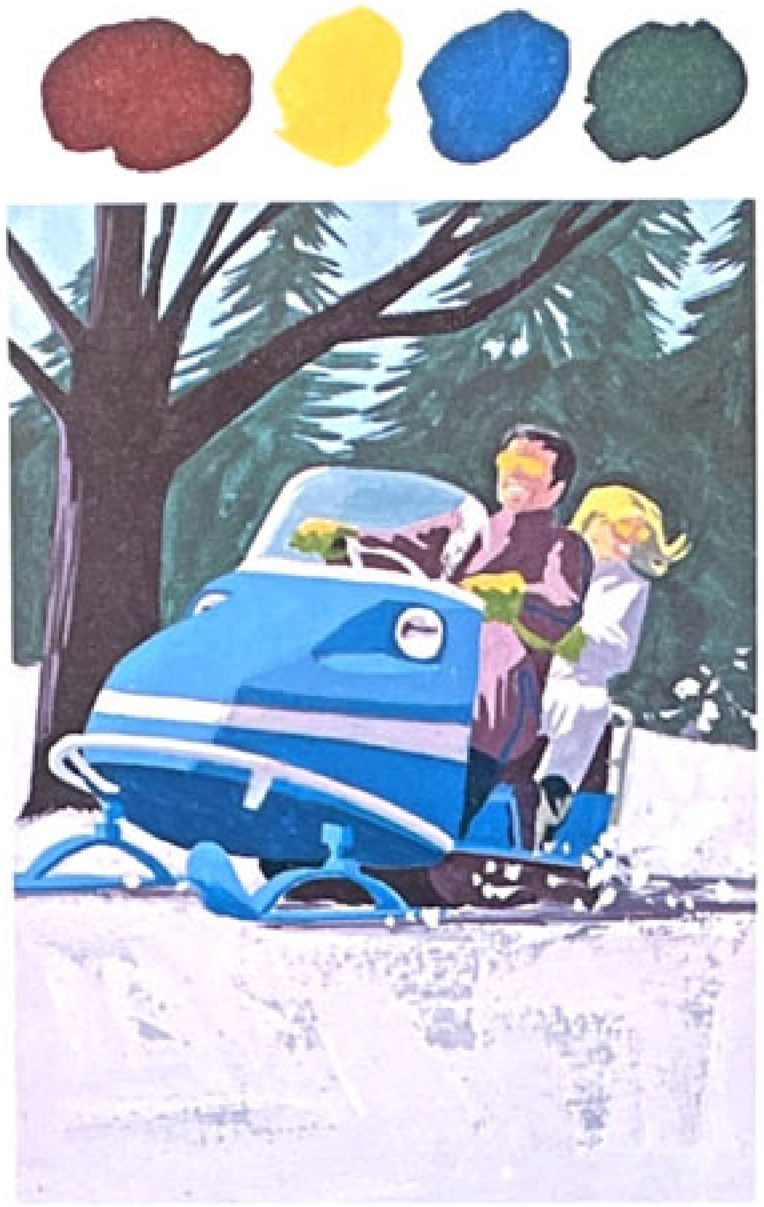
Colors for the palette should be selected before a painting is started. The most important part of selecting is to *keep it simple.* Three to five colors plus black and white makes a good beginner's palette. You can start with your three primary colors (red, blue and yellow), or you can pre-mix four or five colors for your palette and limit your painting to those colors.

Remember how well John Berkey did with just the primaries (red, yellow and blue) plus black and white? You saw how successfully a picture can be painted with that limited palette along with some creative mixing.

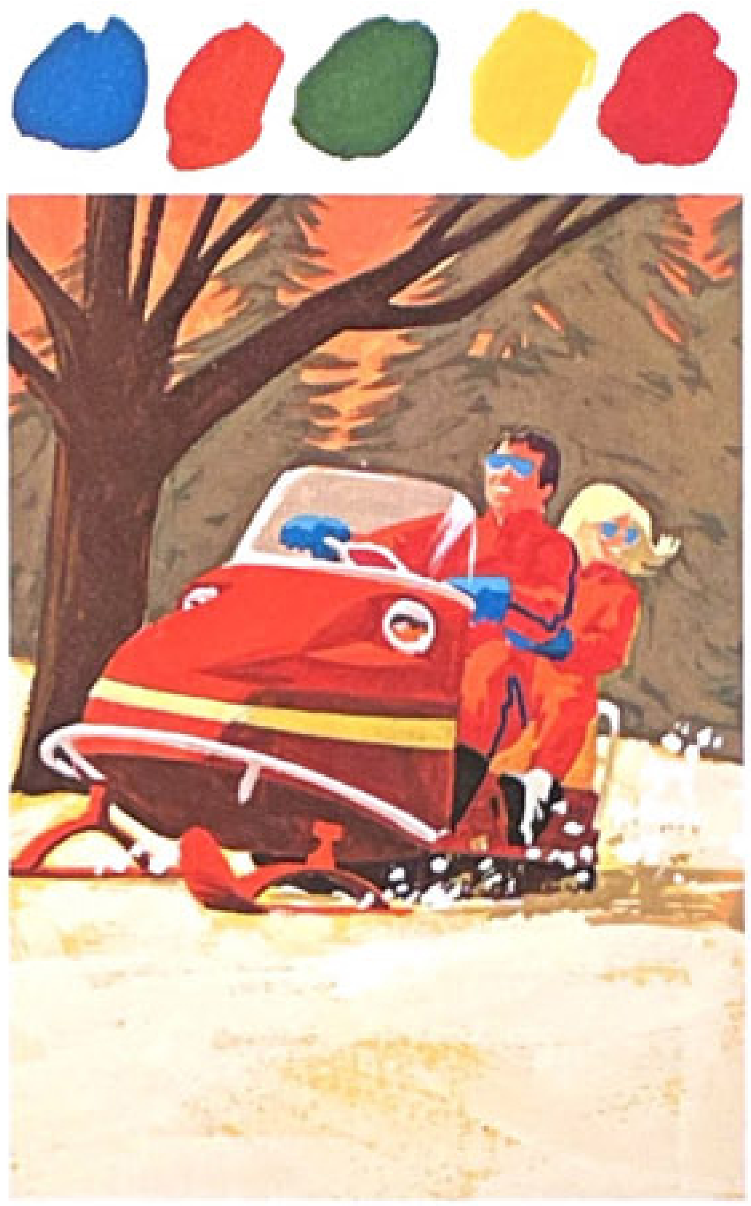
Before you select the colors for your palette, decide on a particular color scheme. Then choose three to five colors to fit this scheme. Once you have selected your colors, it's a good idea to experiment with your color choices. Make a color sketch to see if you can get the results you want with the colors you have selected. A color or two of the original palette can be changed if the mixtures are not quite what you want.

Look at the palette above each painting on these two pages. Note how simple the palettes are — just a few colors plus black and white for each palette.

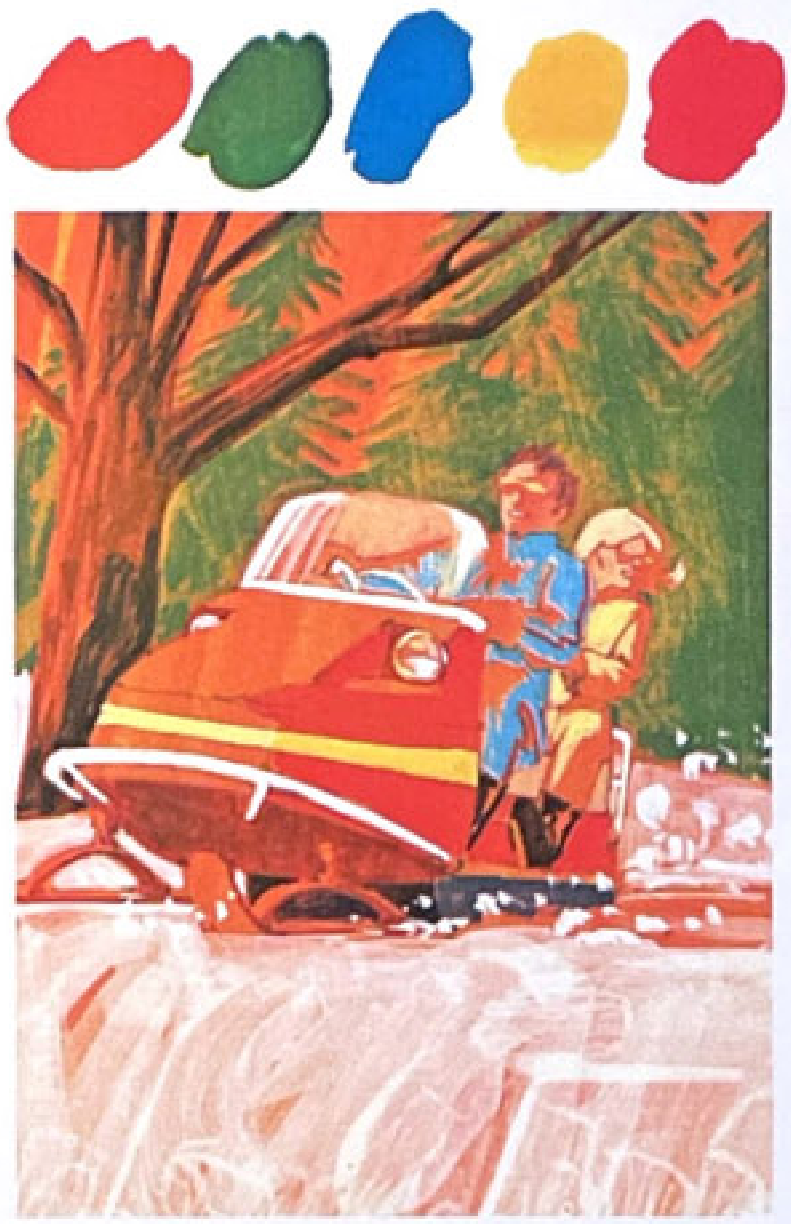
You might want to use these palettes when selecting colors for some of your own pictures. Naturally you can make changes to fit your needs.



Analogous — cool: This version was painted with almost all cool colors that are closely related on the color wheel. There was just a touch of yellow added for contrast.



Analogous — warm: Orange, red and yellow dominate this picture. Blue was used as the contrasting color.



Theme color: Orange is the theme color. A thin coat of orange was painted over the entire surface first. After it dried, the other colors were added.

Common Problems: Their Cause and Cure

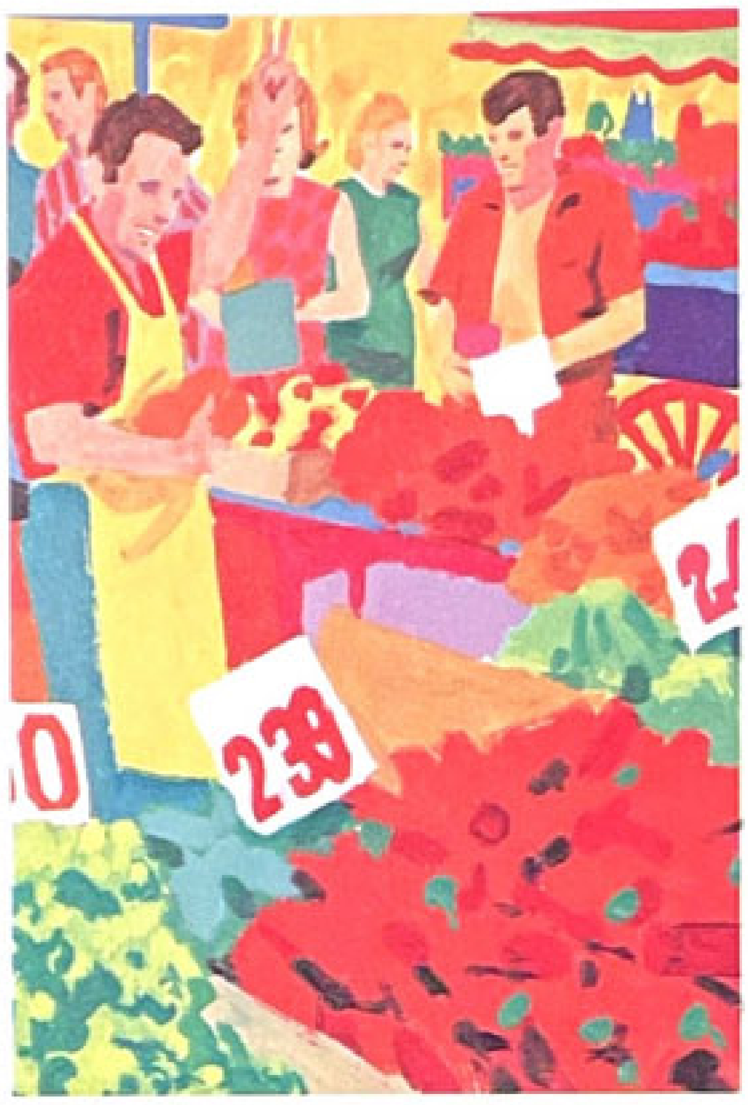
The most frequent problems students have with color are as follows:

Too Many Colors

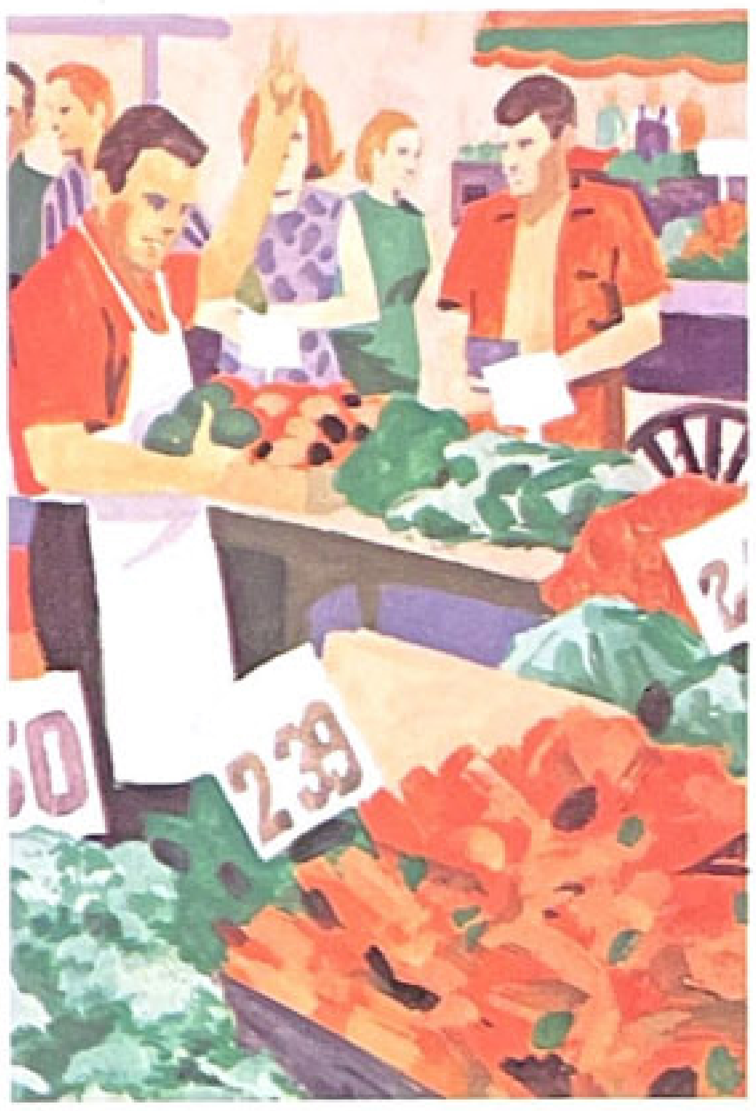
When you start off with too many colors on your palette, your final picture may be confused and lack unity. To avoid this problem, use a simple palette with only three to five colors, plus black and white. These colors can be intermixed to give variety without losing the unity of a "limited palette."

Too Many Bright Colors

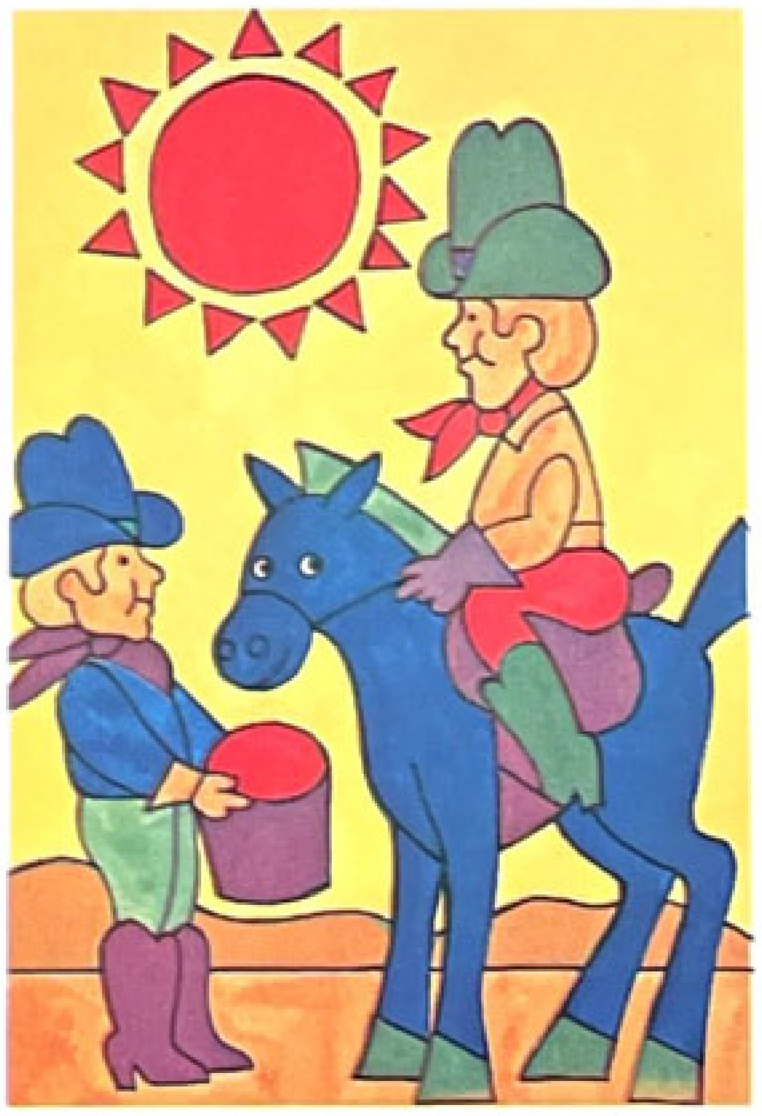
When all colors are of equal strength, they fight each other for attention. This problem can be avoided by graying with a complement or softening some of them with white. Bright colors should be used very sparingly as accents.



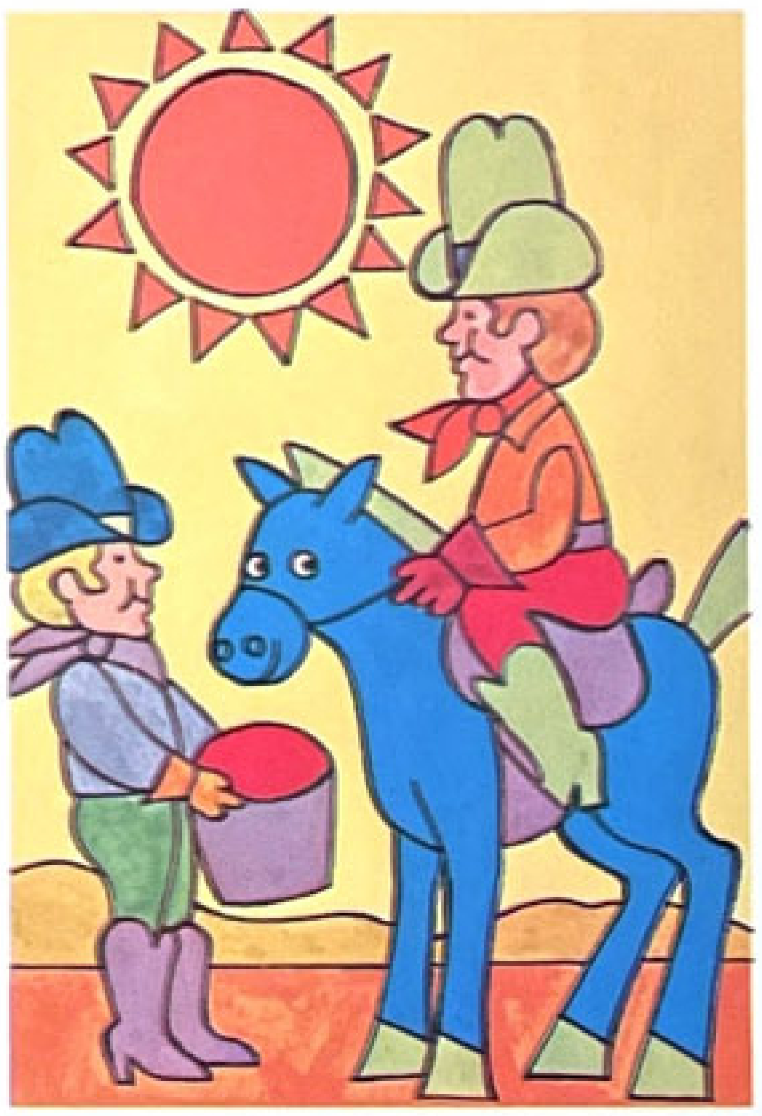
Too Many Colors
Too many colors have made this picture confusing. When too many colors are used they compete with each other for attention.



This is a better result. Fewer colors were used. By intermixing colors from a limited palette, plenty of variety can be achieved.



Too Many Bright Colors
When all or most of the colors used are bright they will fight each other for attention, just as too many colors will.



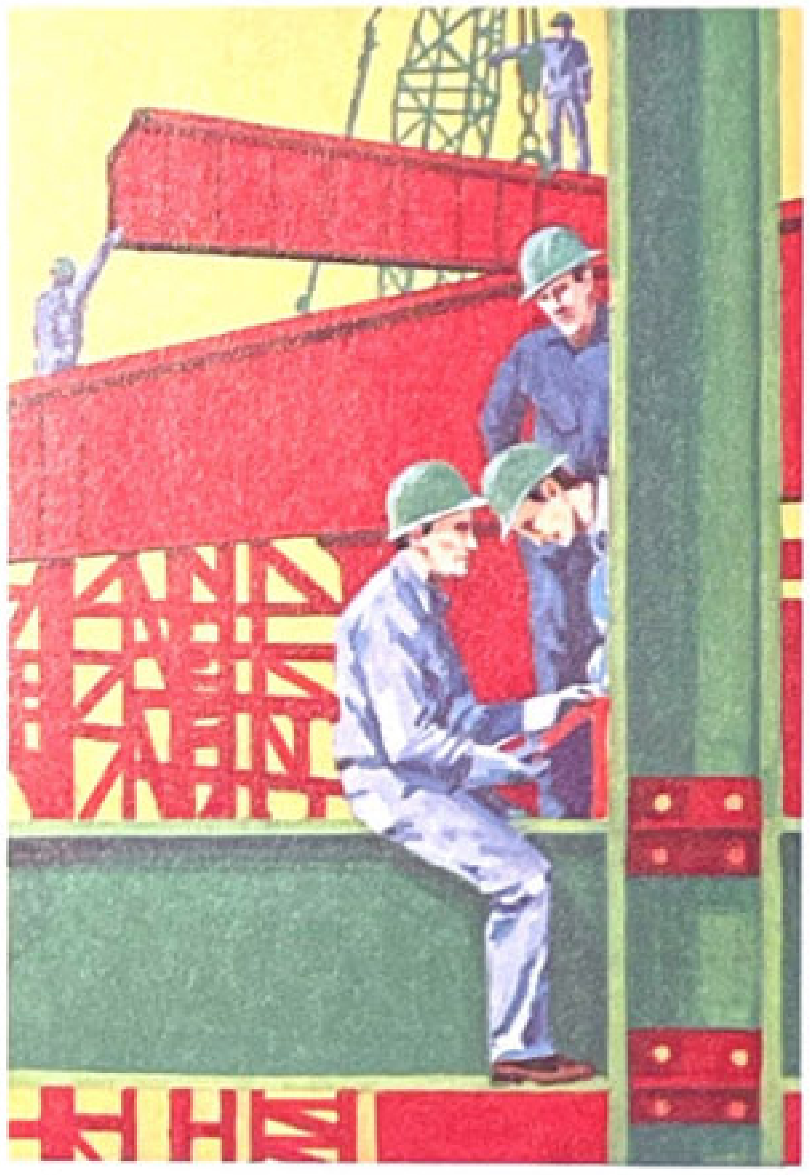
Tinting or graying several of the colors gives the picture a better color balance. Save your brightest colors for the things you want to stand out or as a contrasting note.

Colors of Equal Intensity In Background and Foreground

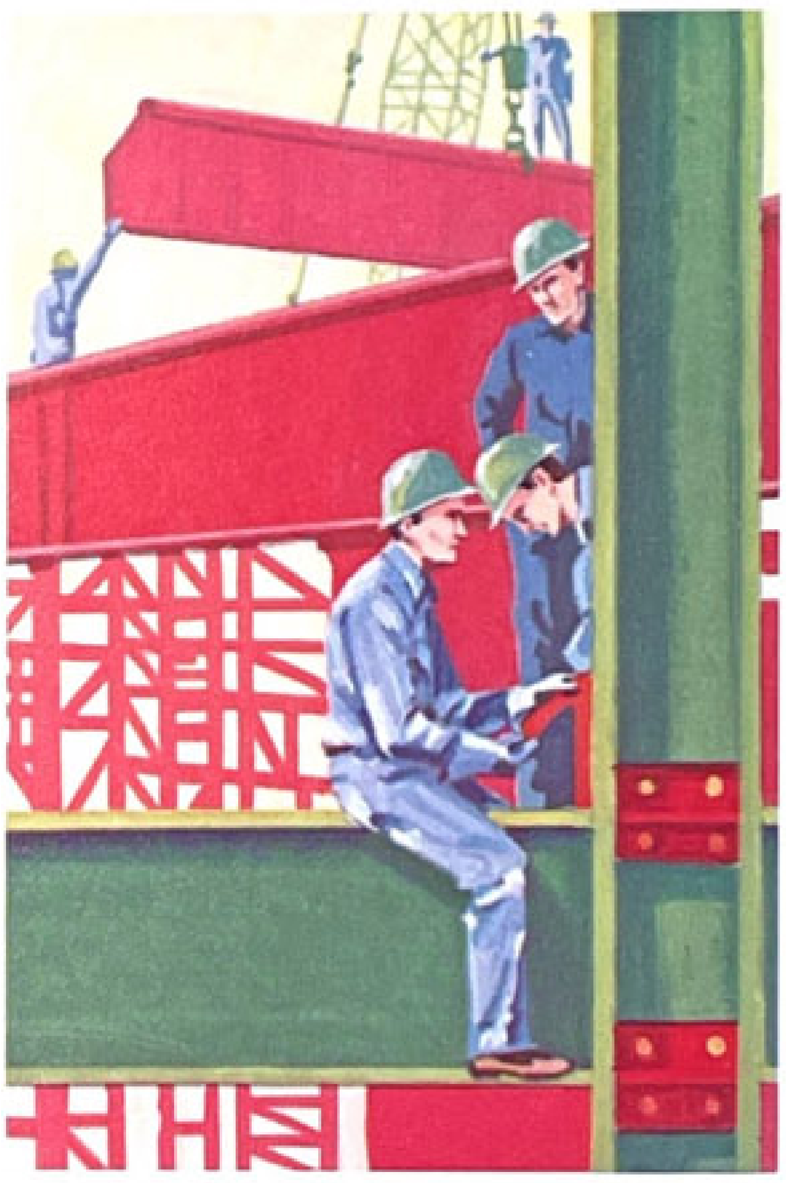
When contrasting colors of different intensity appear in both background and foreground the picture space becomes confused and often has a lack of depth. Here's a good rule to follow: colors in the background should be kept soft and of equal intensity; colors in the foreground should have more contrast but be of equal intensity.

Strong, Contrasting Background Colors

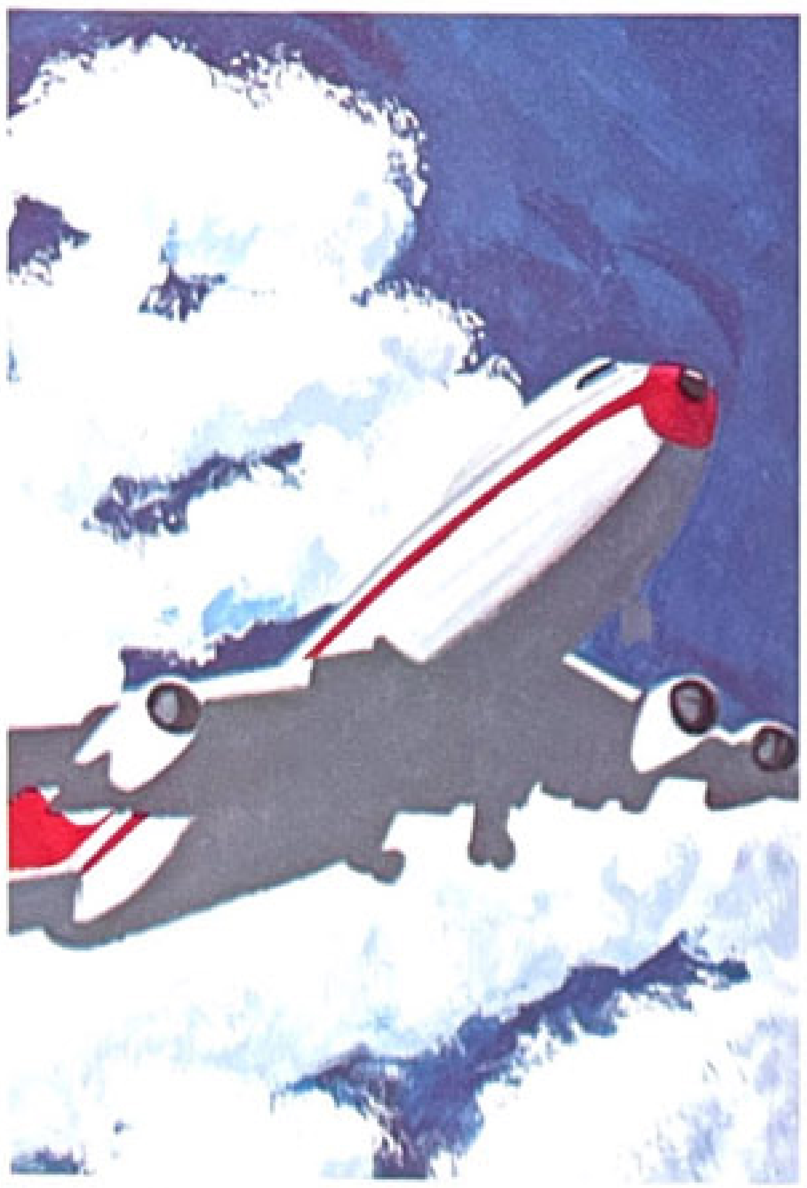
When strong, contrasting colors are used in the background, it can make the background overpower the subjects in the foreground. Background colors should be soft and muted. The background colors should not conflict with those in the foreground.



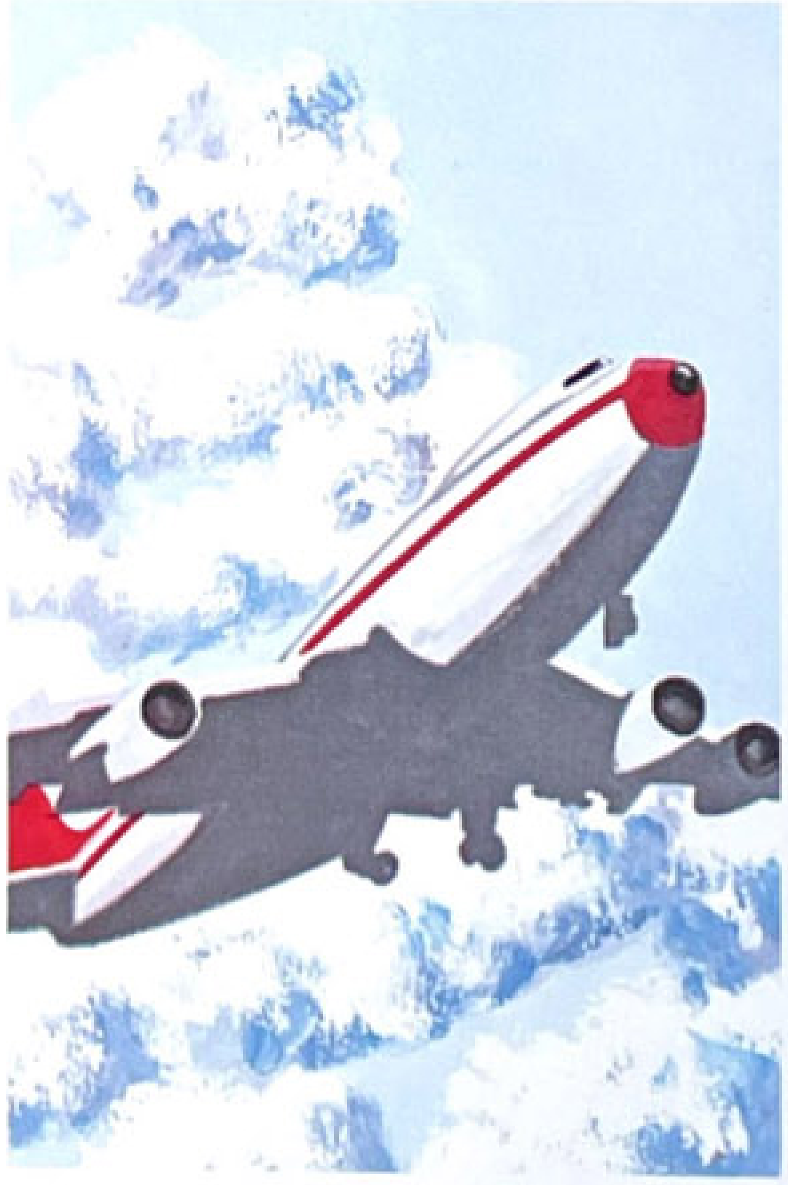
Colors of Unequal Intensity in Background and Foreground
By using both soft and bright colors in the background and foreground, the picture becomes out of balance. The workmen are almost lost as they stand amid the bright red beams.



The men in the background are painted the same here as they were in the first version. However, because the red beams are less intense we now have better balance. The steelworkers in the foreground stand out the way they should. They too were overpowered by the red beams in the first version.



Strong, Contrasting Background Colors
The deep blue sky against the white clouds creates too strong a contrast. As you can see the jet liner is almost lost against such a strong background.

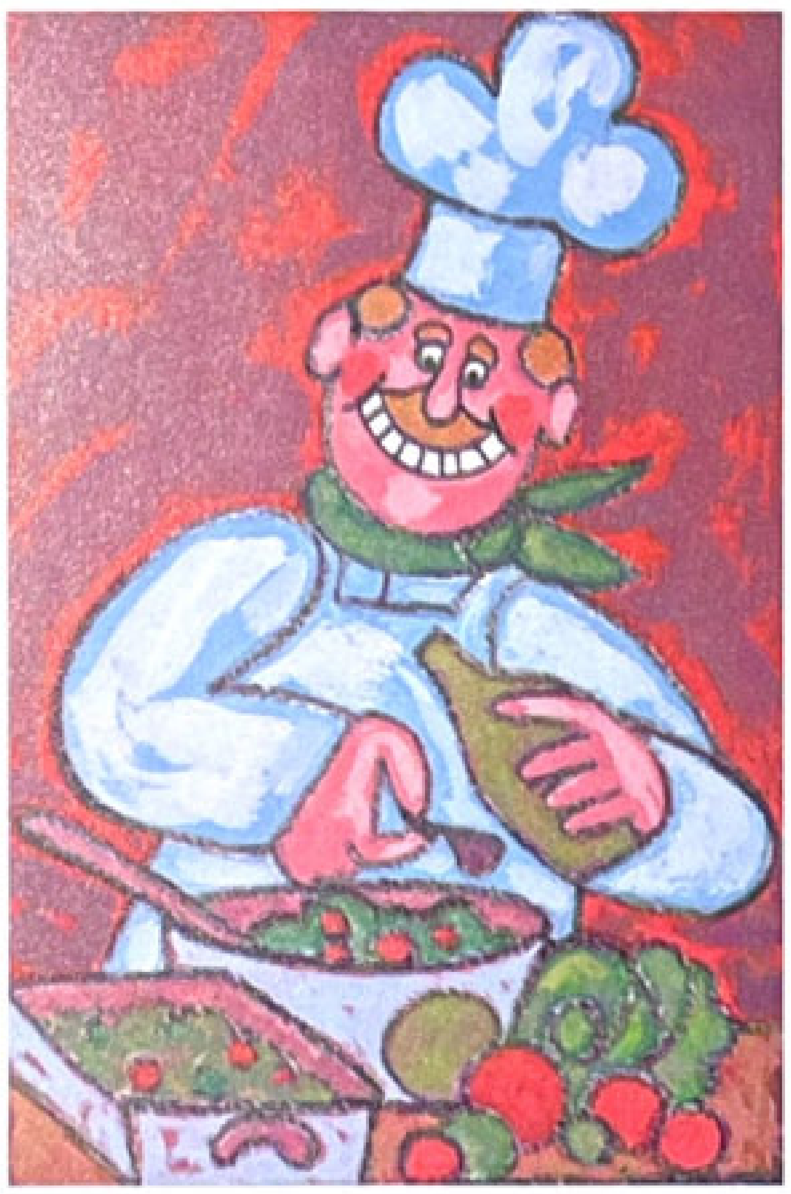


This version is much more satisfactory. Tinting the sky color made it less intense. Now the jet liner stands out as it should. The colors in the background of any picture should never overpower the subject in the foreground.

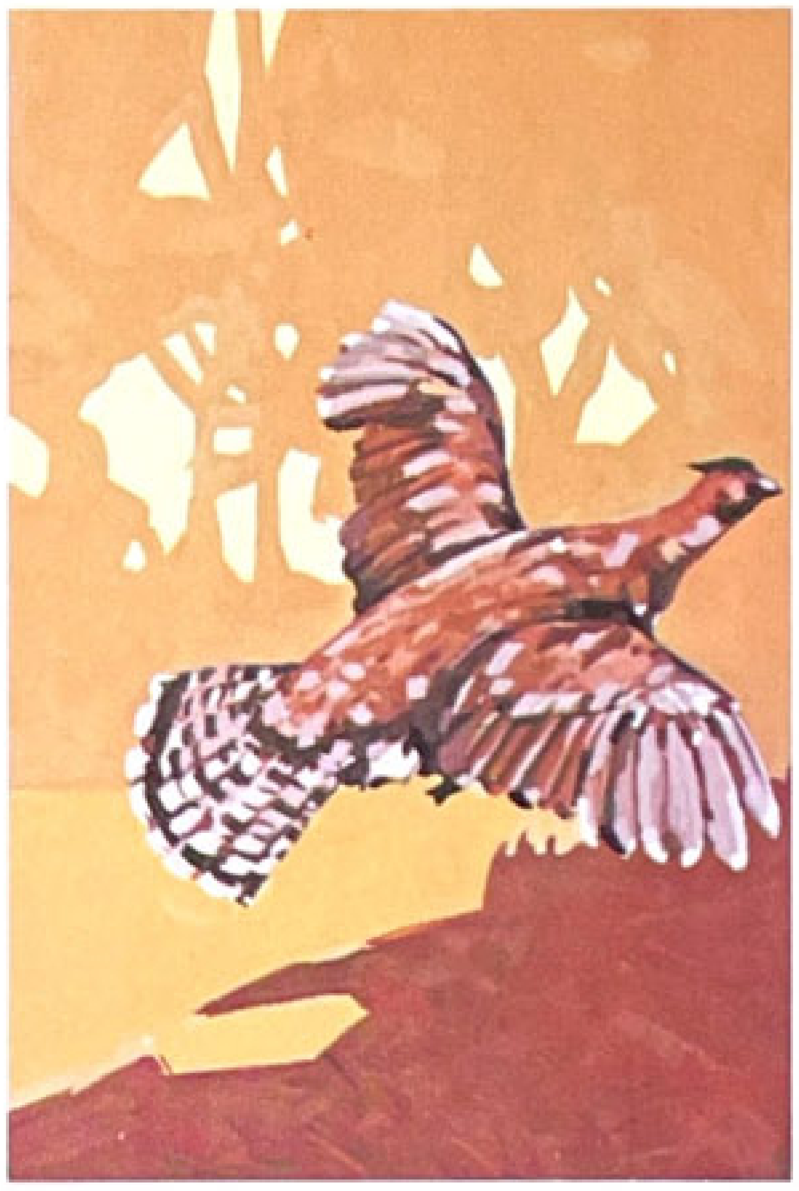
The Triad

A triad palette is made up of three colors plus black and white. The artist can select three colors and from these various tints and shades can be mixed. The most common triad palettes are made up of one color with yellow in it, one with red in it and one with blue. Example: Red-violet, blue-green and orange. The orange contains the yellow, red-violet contains the red and blue-green contains the blue.

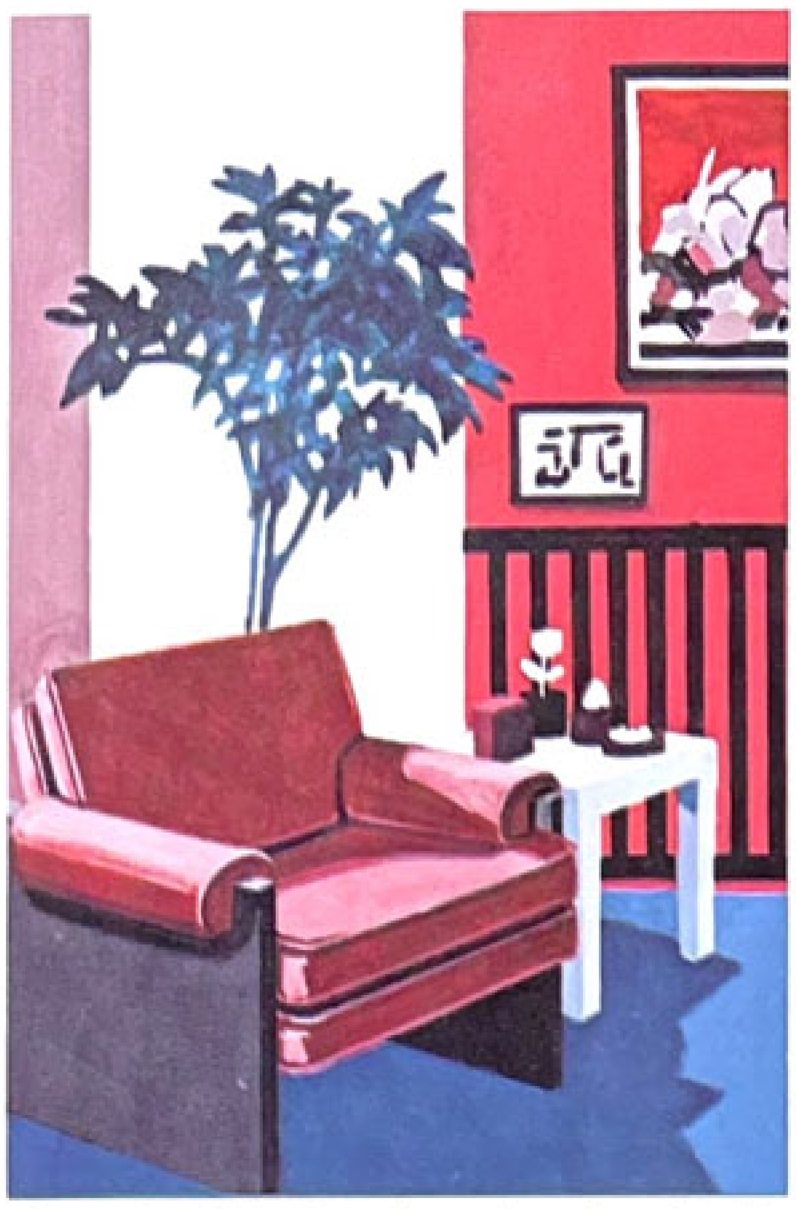
The four pictures on this page were painted with four different triad palettes. Here is visual proof that you do not need a palette crowded with ten colors or more to produce good work.



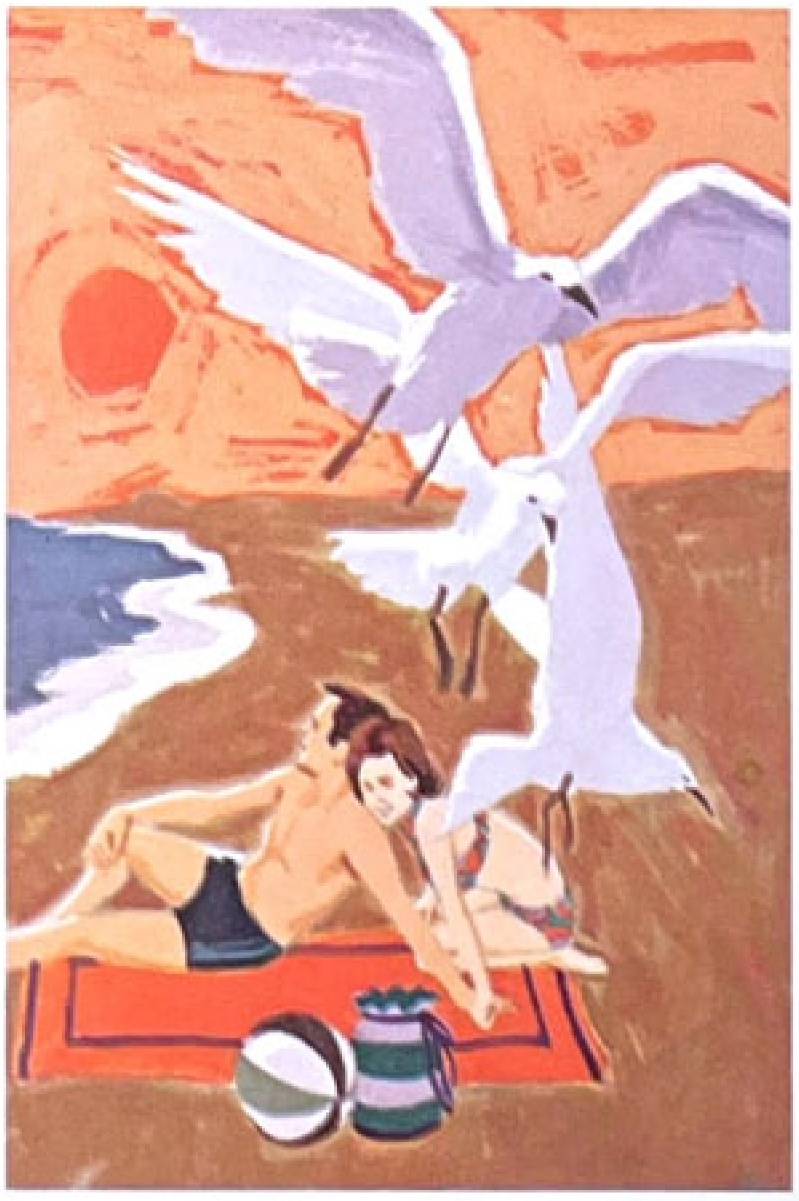
In this picture, red, blue and yellow-green made up the triad palette. The colors were intermixed to add variety. White was used to make the various tints.



The triad pallette here was yellow, yellow-orange and brown. These colors have all been modified by either intermixing or by tinting. All three colors plus black and white were used to create the feather textures on the quail.



Blue, red and black made up the palette for this modern room. Black is usually not thought of as part of a triad. In this case it is one of the dominant colors. Various grays were also made with black and white to further use black as a color.



This next triad palette is a rather interesting combination of colors. The artist used red-violet, blue-green and orange. Can you tell how the different colors were made? Most of the color combinations are rather easy to figure out. One exception is the color of the sand. This was made with blue-green, orange and white.

One Man's Approach

The color work on the following pages are illustrations executed by a professional, full-time, freelance illustrator. The work was done by Brent Copp, a former student and a graduate of Art Instruction Schools.

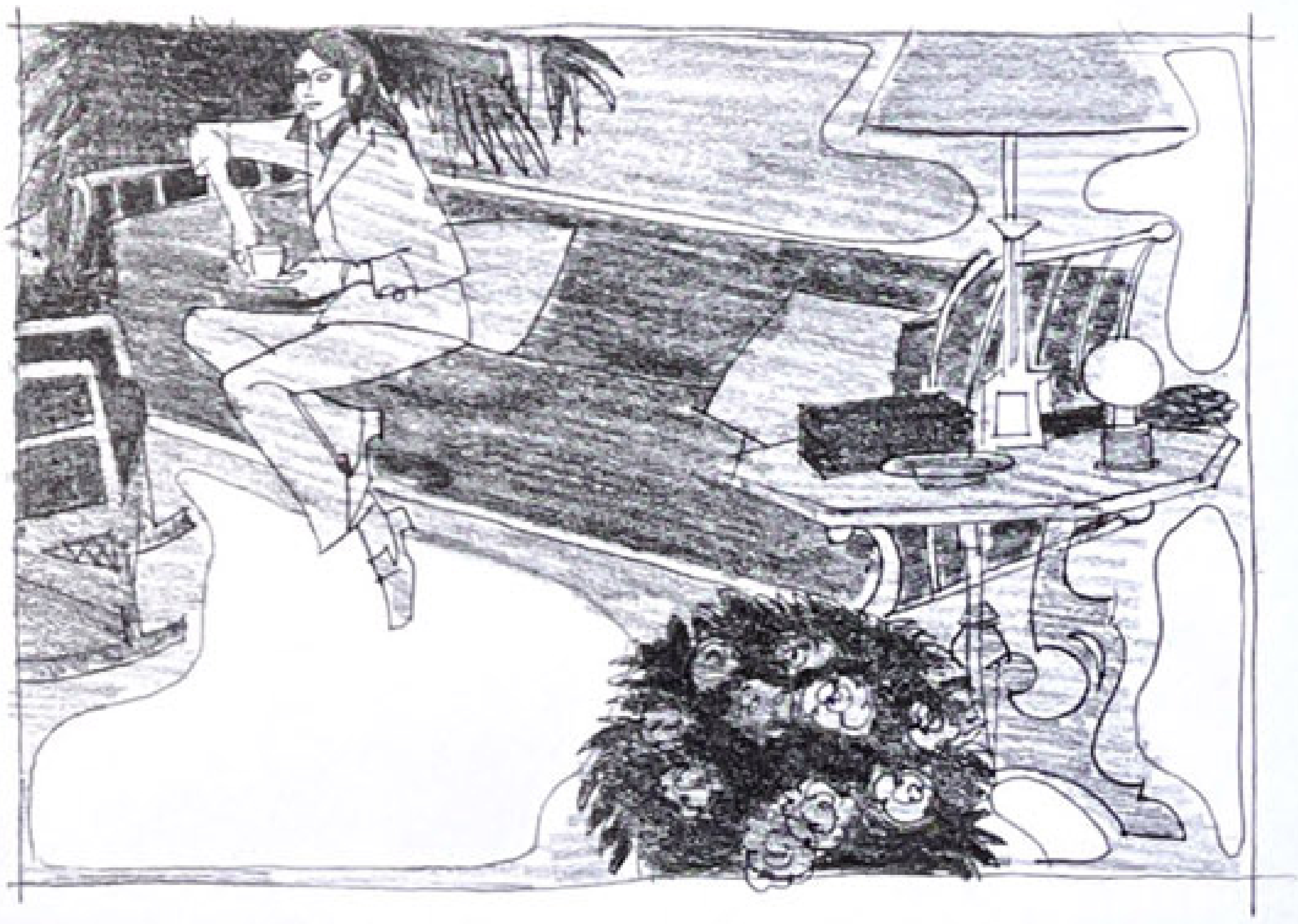
We know you will enjoy looking at Brent's illustrations; however, we do not want you to think that you must use color in the way Brent does. Each person should have his own personal approach to color and to paint handling. You can learn a great deal by studying the work of professional artists, but you can only develop your own color style by working in a way which seems right and natural to you.

Brent employed a "line-and-wash" approach for three of his four illustrations. In other words, Brent works out a careful line drawing first, and then applies thin, transparent glazes of color over this drawing. This line-and-wash approach is the way many illustrators use color. It is fast. It gives a crisp, "finished" look with a minimum of effort. It minimizes chances of failure from an unwieldy buildup of thick opaque paint. It is a good way of working for a professional who has an eye on the clock and a need to get "top dollar" for his efforts.

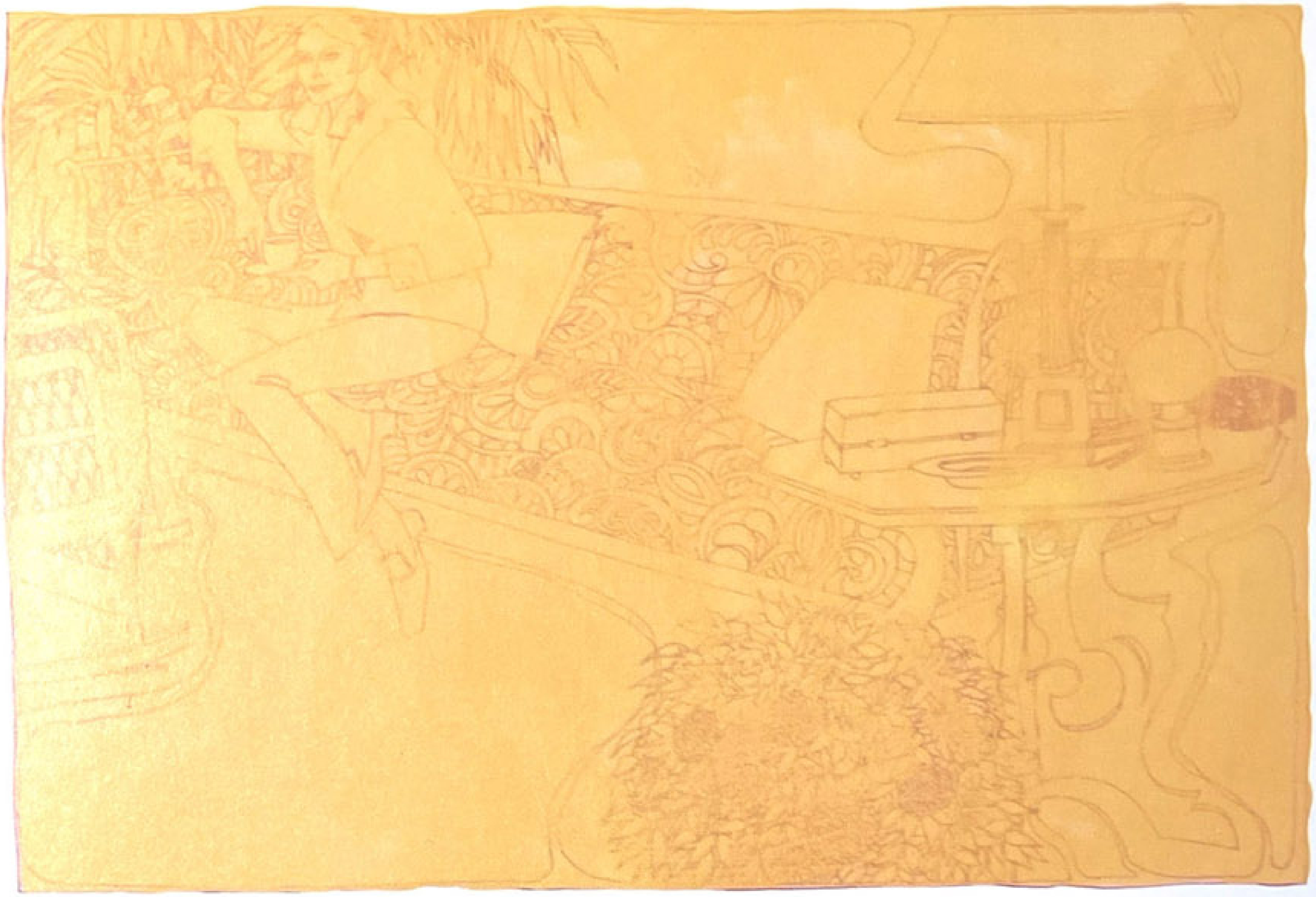
Brent Copp at his drawing board.

There are a number of things you can learn from Brent's color technique. First, we want you to realize that Brent is a thoughtful planner. He does not jump into an illustration hoping that it will "turn out." Brent takes the time to plan each picture before he begins painting. He develops a number of preliminary value studies in pencil. He may also develop small color studies prior to painting a full-scale illustration. Generally, he selects a color scheme before he begins working, and he almost always limits his palette to only three or four colors.

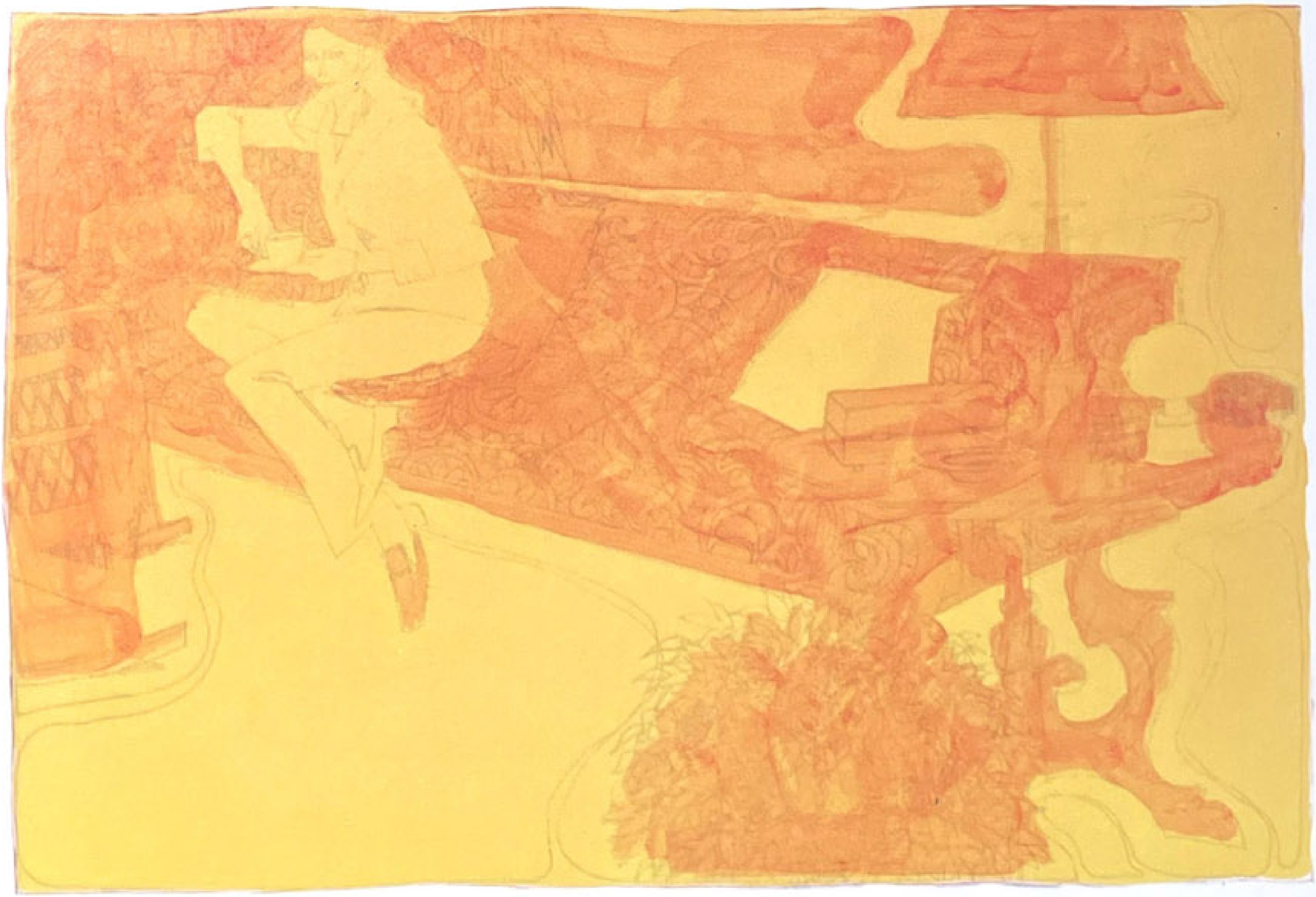
Now, with these "tricks of the trade" fresh in your mind, turn to the full-color illustration demonstrations on the following pages. Study each picture and read the captions.



Before starting the final picture, Brent stopped to work on a value sketch. He wanted his magazine illustration to have a bright, fresh character, so the majority of colors and values were kept light. Only a few dark values appear behind the girl's head, on the rocker, table and flowers.



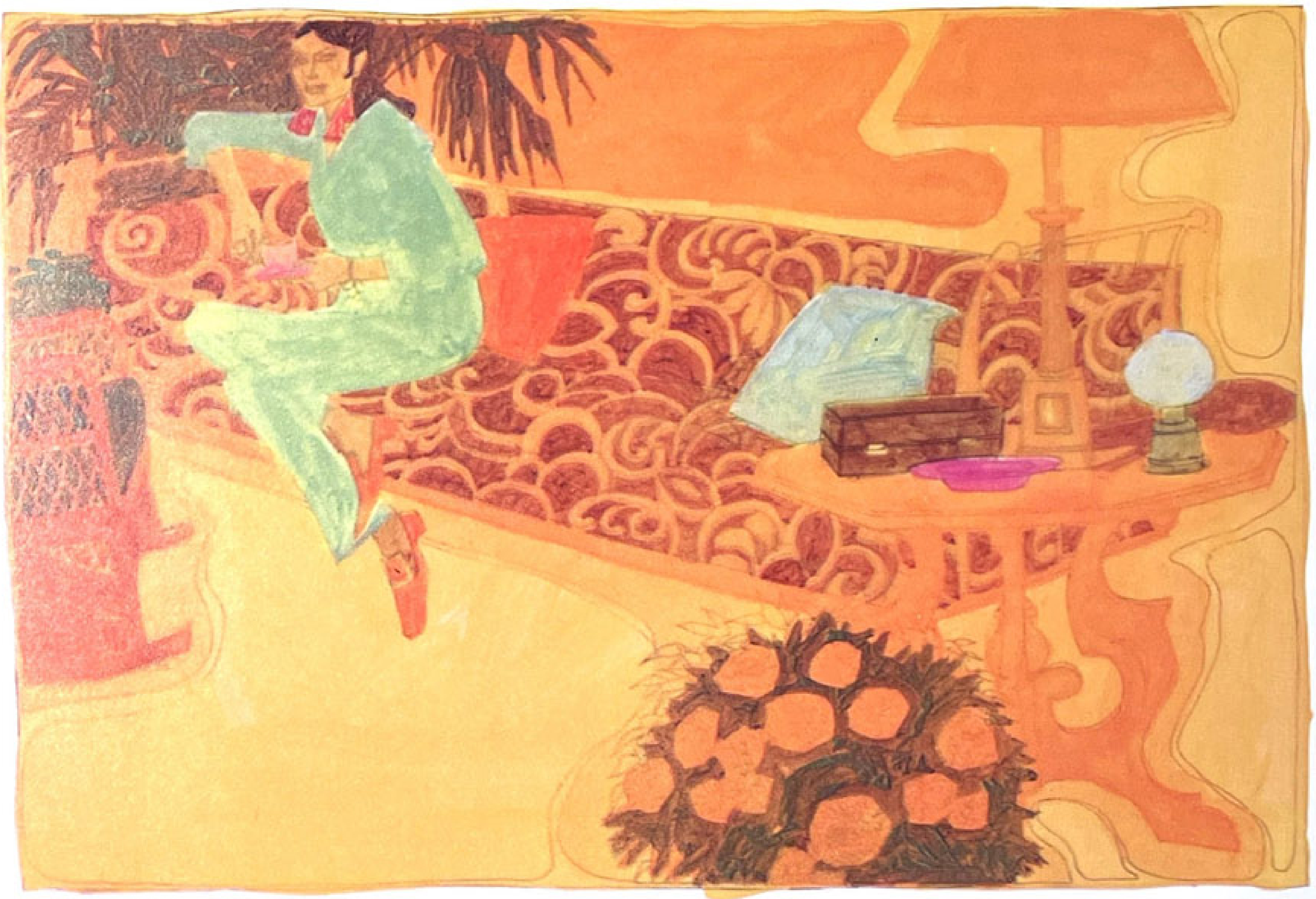
Step one



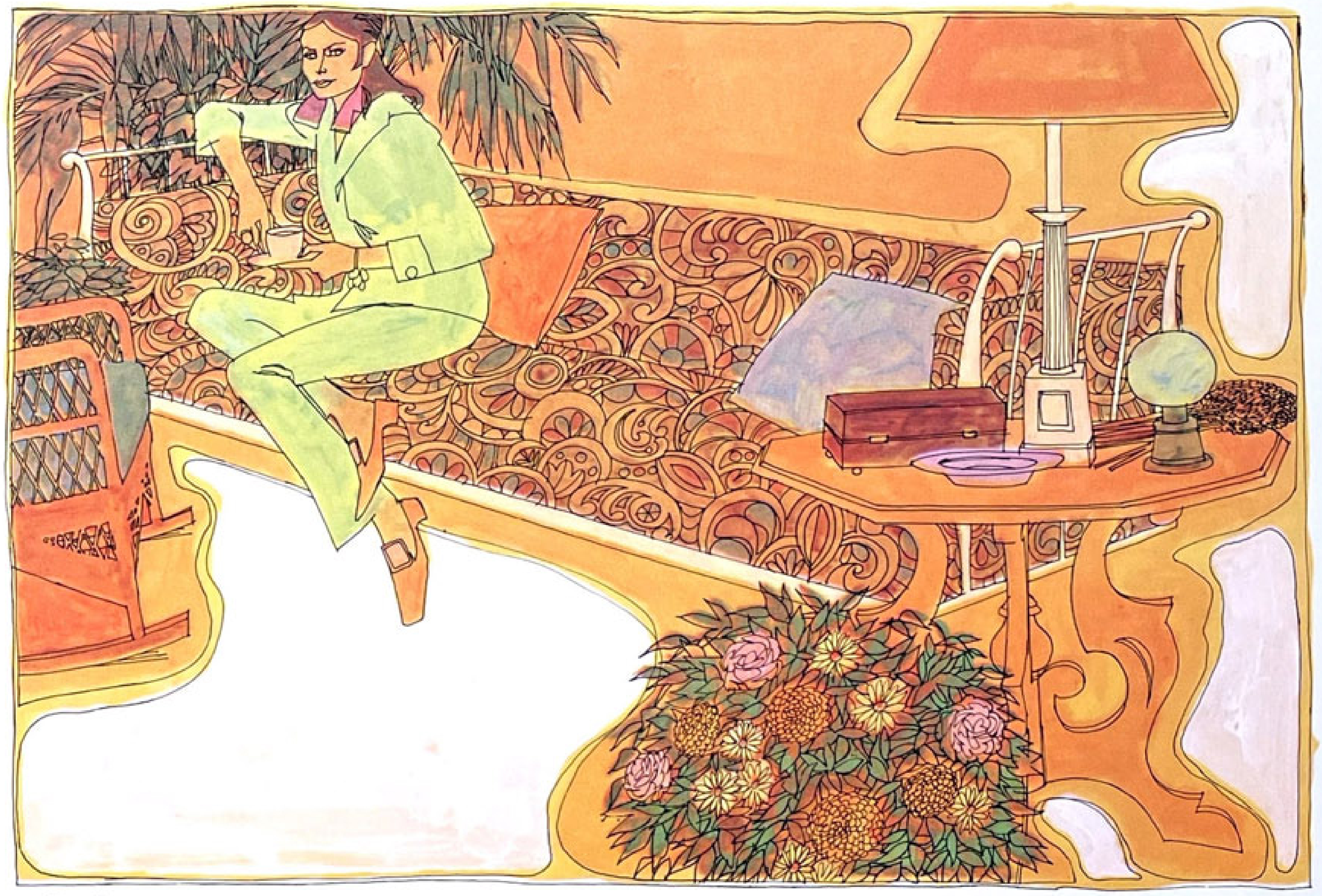
Step two

Step one: At the top of the page you see the application of the theme color. A light wash of paint, greatly thinned with water, was applied over the pencil drawing on the illustration board. Much of this first color still shows through in the completed illustration.

Step two: A second wash of color carries the picture closer to completion. Like a true professional, Brent does the largest areas first and then works down to smaller color accents. Each stage is accomplished by the addition of another transparent wash.



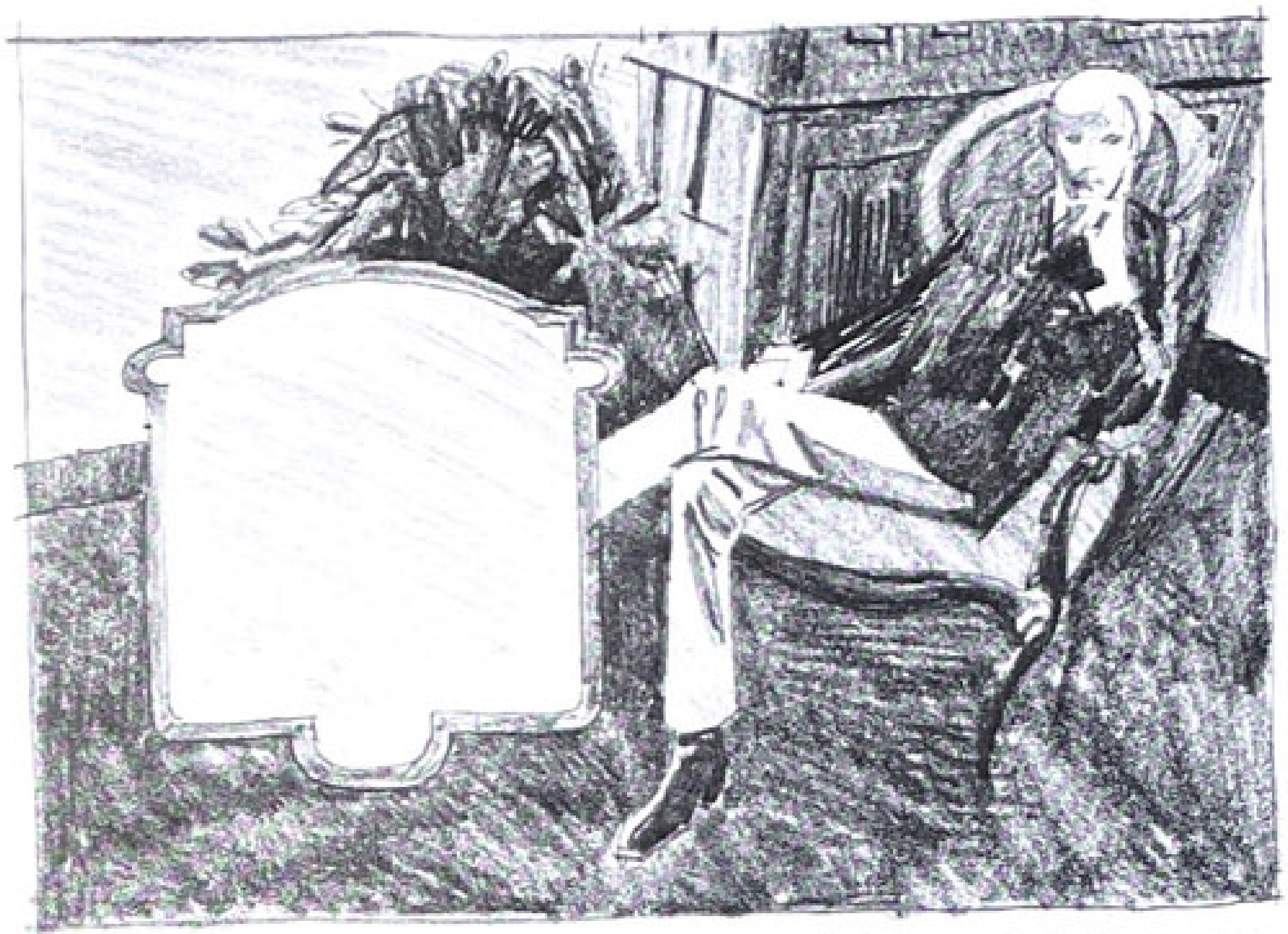
Step three



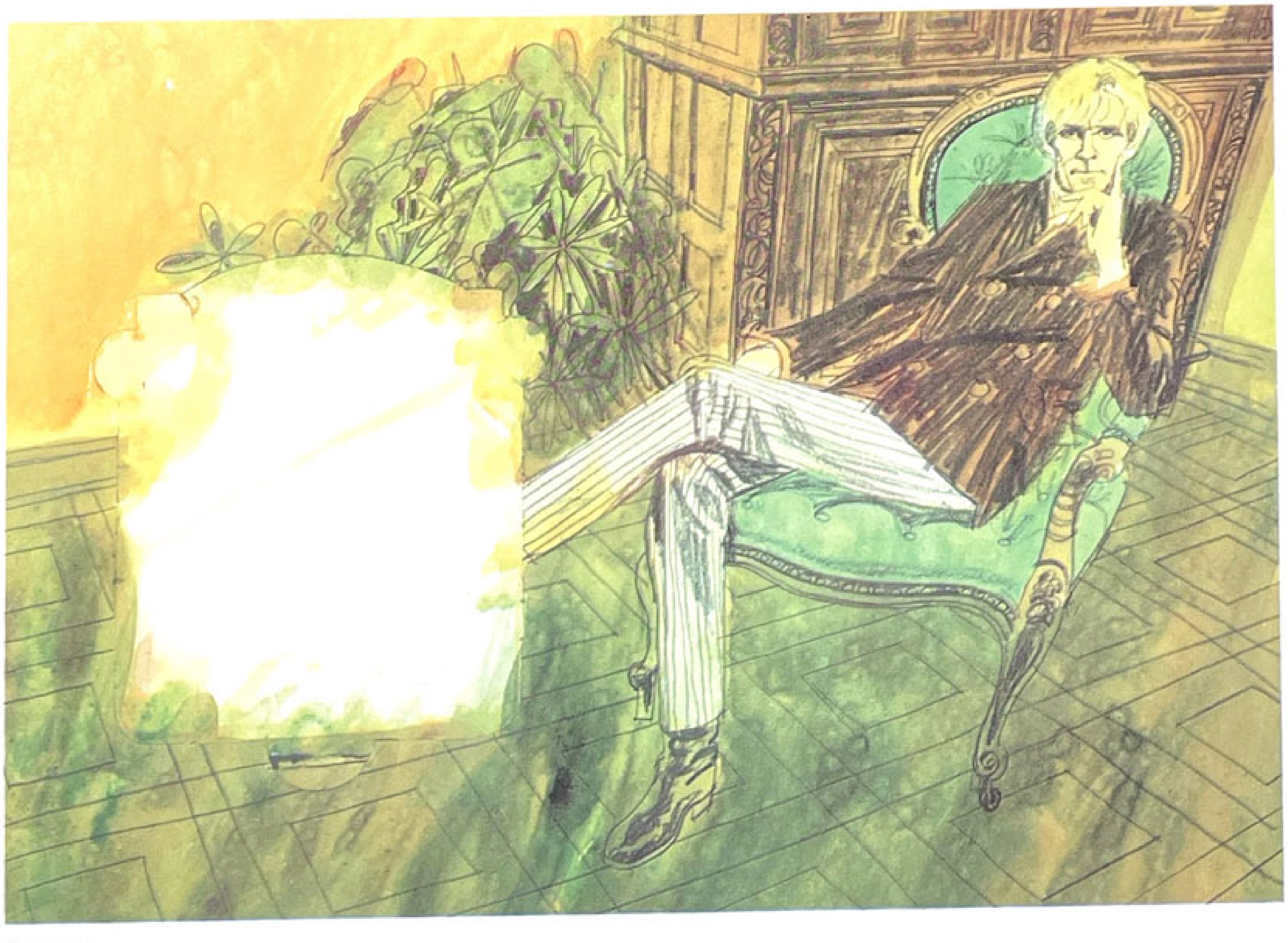
Step four

Step three: The artist used a few complements to break the monotony of a pure analogous color arrangement. The blue-green on the girl makes her stand out as the center of interest. Other complementary colors spotted throughout the illustration create a pleasing visual balance.

Step four: A careful line drawing rendered over the color completes the art. Vivid line patterns contrast nicely with quiet areas of flat color. The line-and-wash technique is often used by busy illustrators because it gives a finished look in a short period of time.

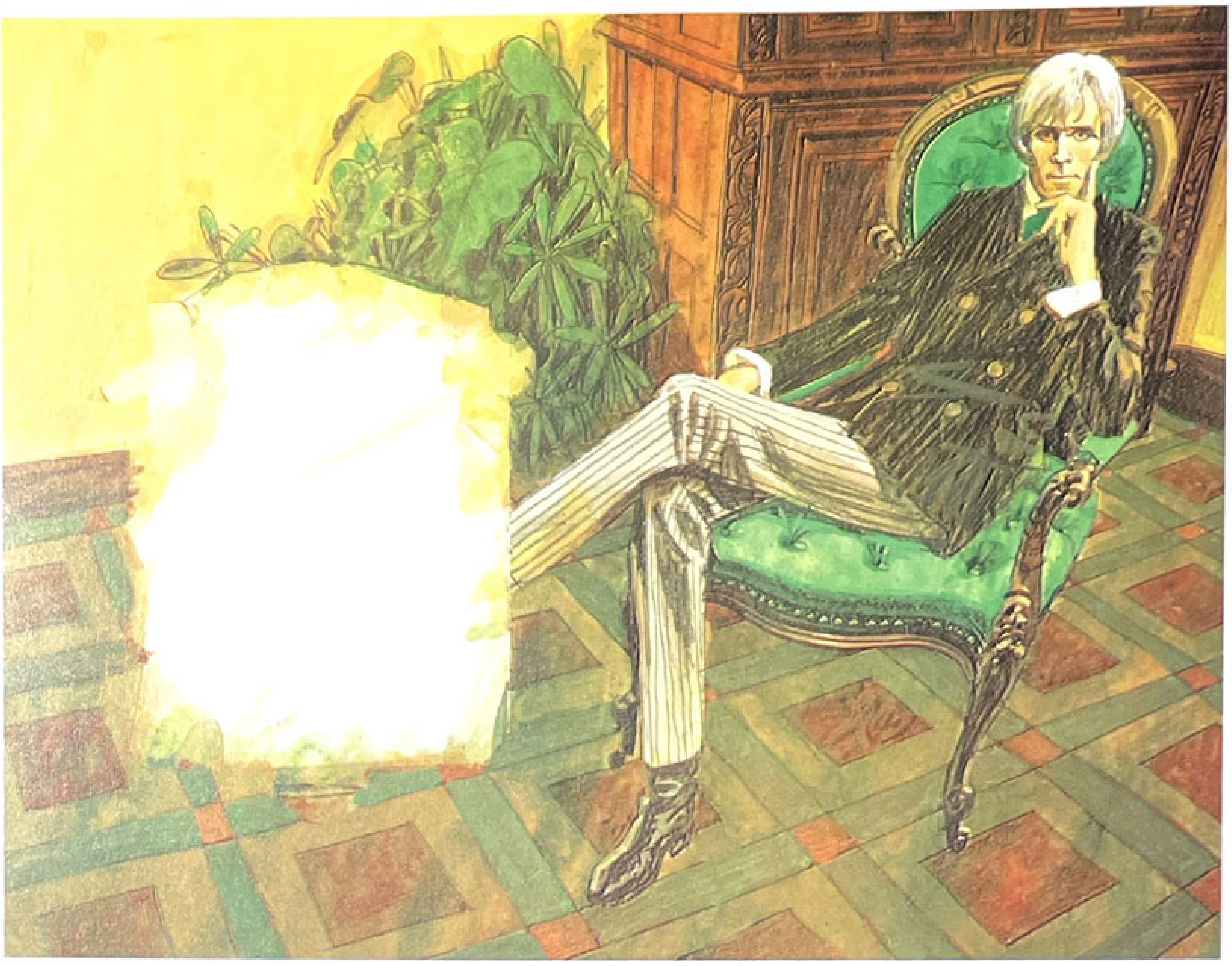


In his value sketch Brent played light against dark, dark against light. This contrast gives interest and "snap" to the picture. Note the shield shape, the area for the title and first paragraphs of a story. Although Brent could not change the size of this shape, he did have the freedom to move it around in the picture space. He chose to use it as a counter balance to the figure and furniture on the right side of the illustration.

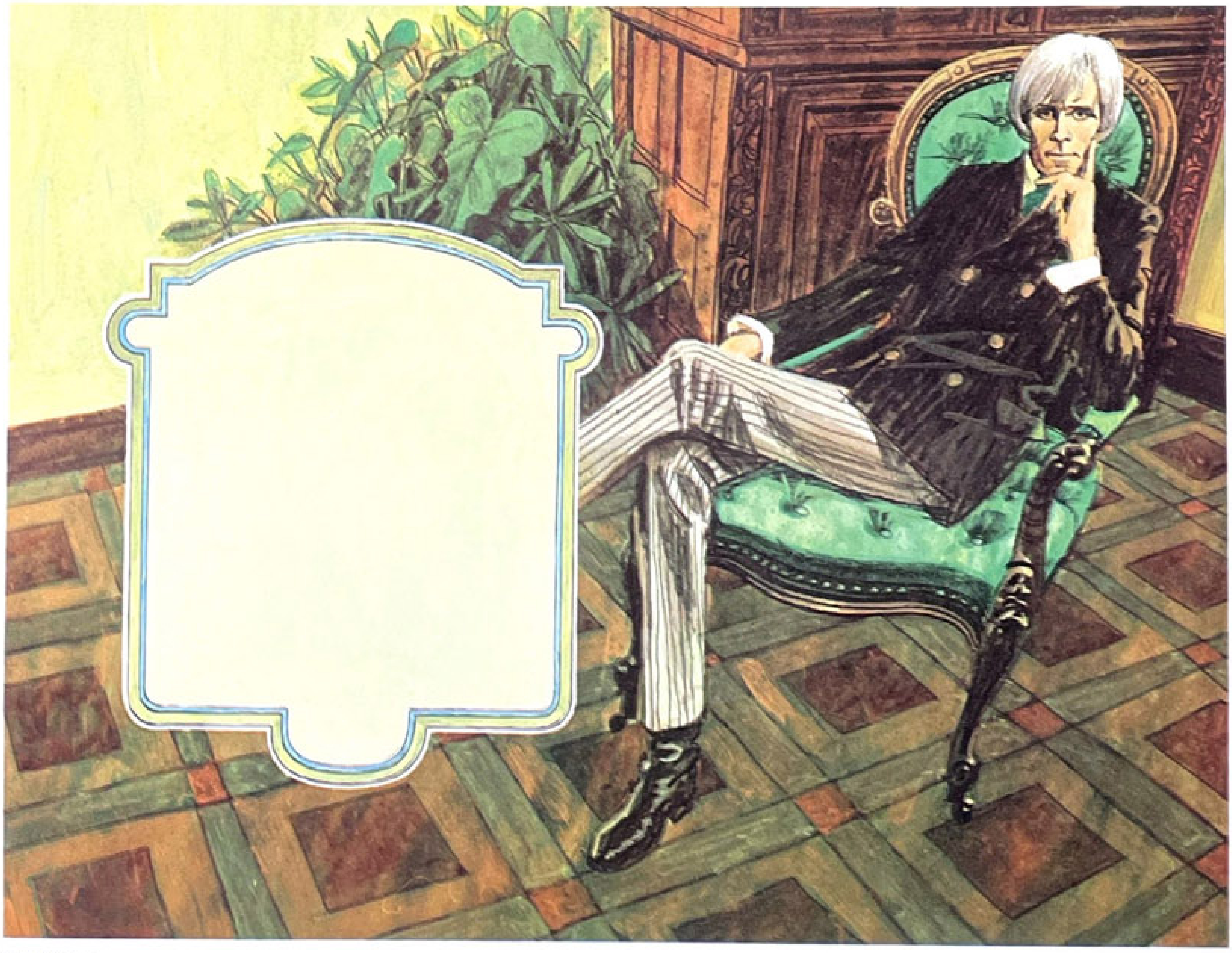


Step one

Step one: Brent followed the arrangement of light and dark pencil tones of his value sketch when he started his first lay-in of color. He kept his palette simple, using only three or four colors. The green washes dominate this first stage, though complementary orange hues are evident on the background wall and furniture piece.



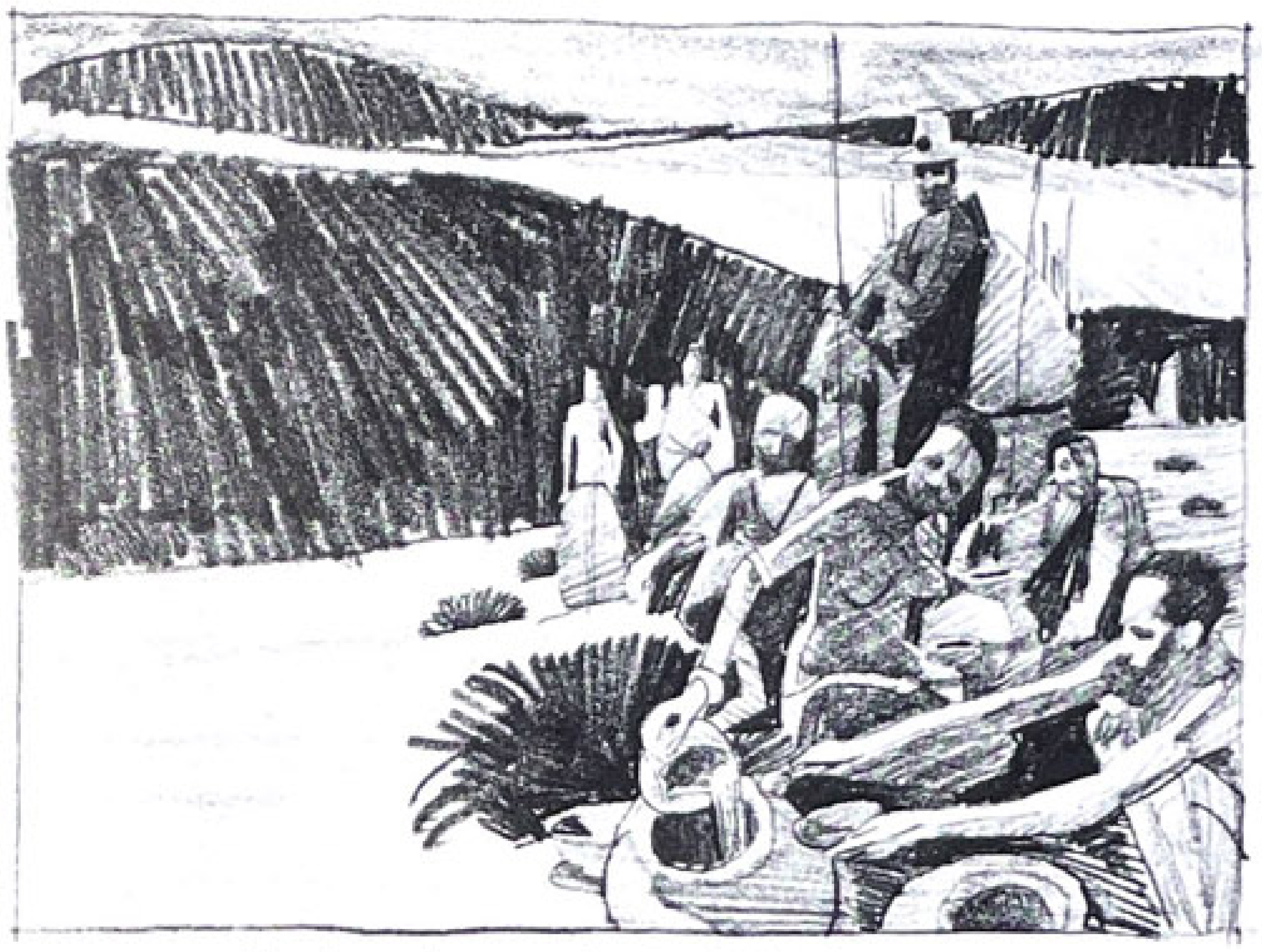
Step two



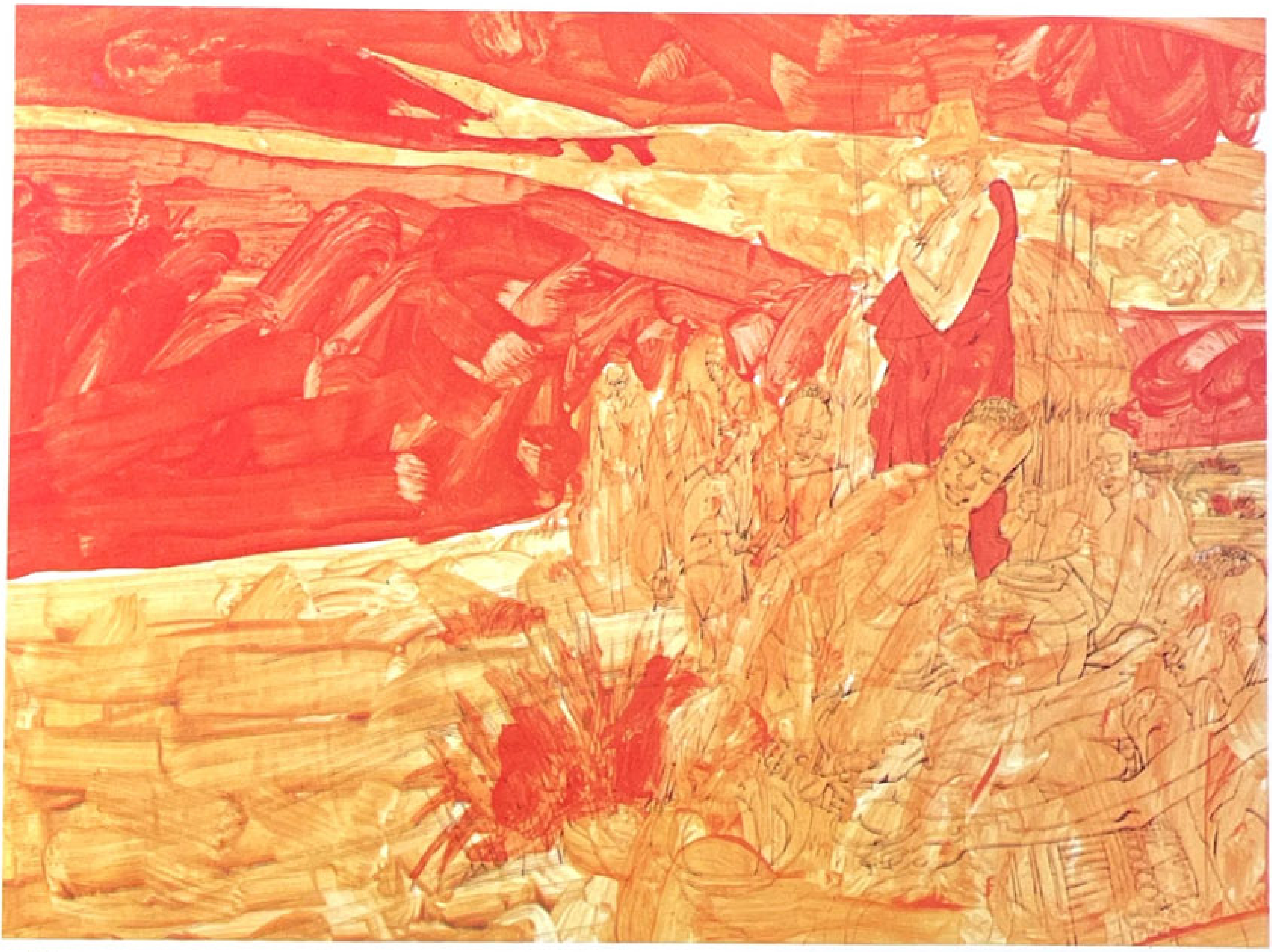
Step three

Step two: At the top of the page you see how the artist carefully worked out the color patterns on the floor. Each new color was applied as a transparent glaze, which allowed the careful charcoal line drawing to show through the (thin) paint.

Step three: A paper mask which had been fixed on the board was now pulled off. This is the area where the title and opening paragraphs of the magazine story would appear. Note the similarity of colors in this area, the wall and the man's trousers. Colors of a similar mixture help keep a picture unified and visually strong.

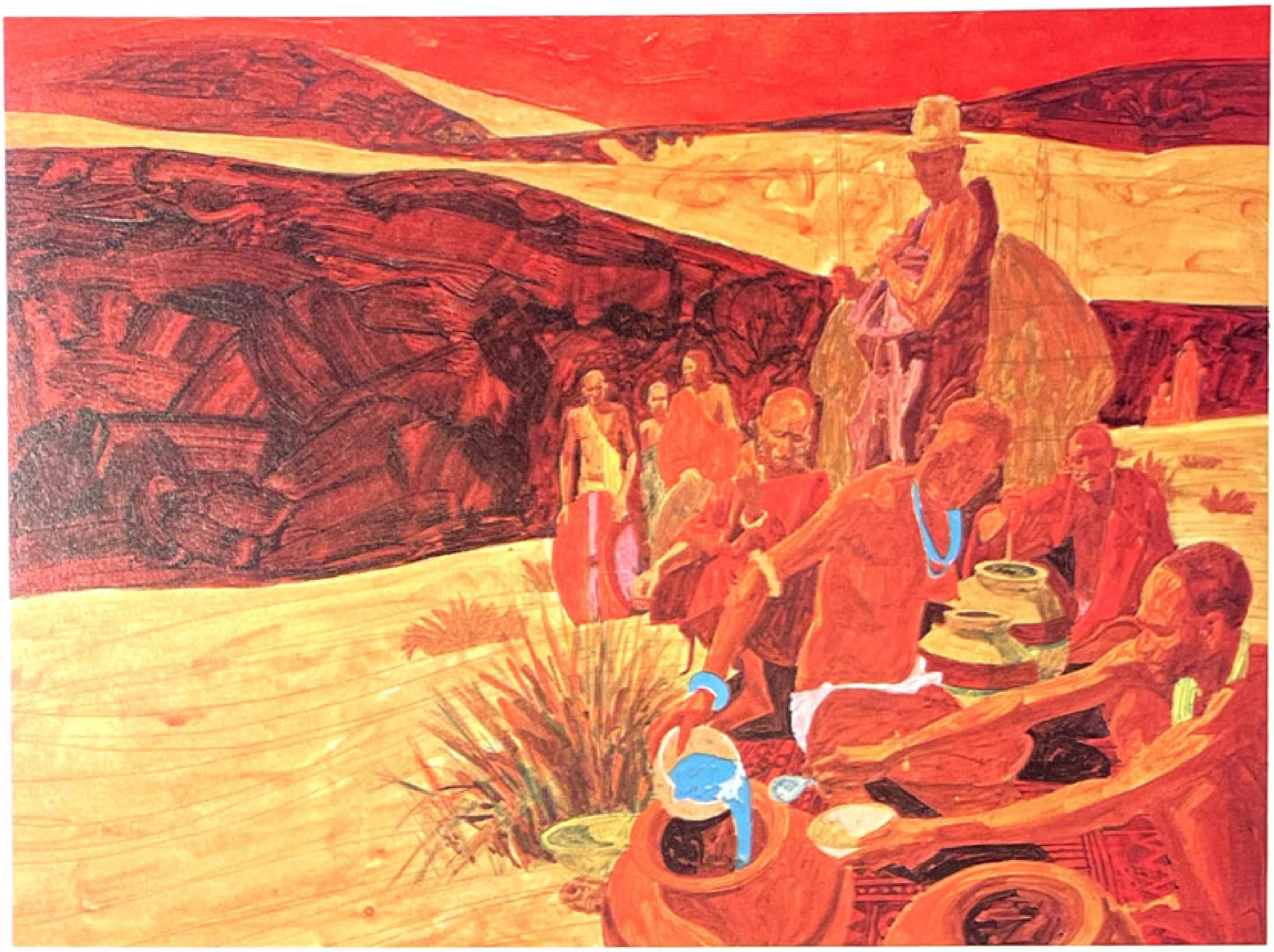


We show only one value sketch, but the artist actually made many sketches before arriving at an arrangement of tones which pleased him. Note how the large dark shape on the left is balanced by the figure group on the right.

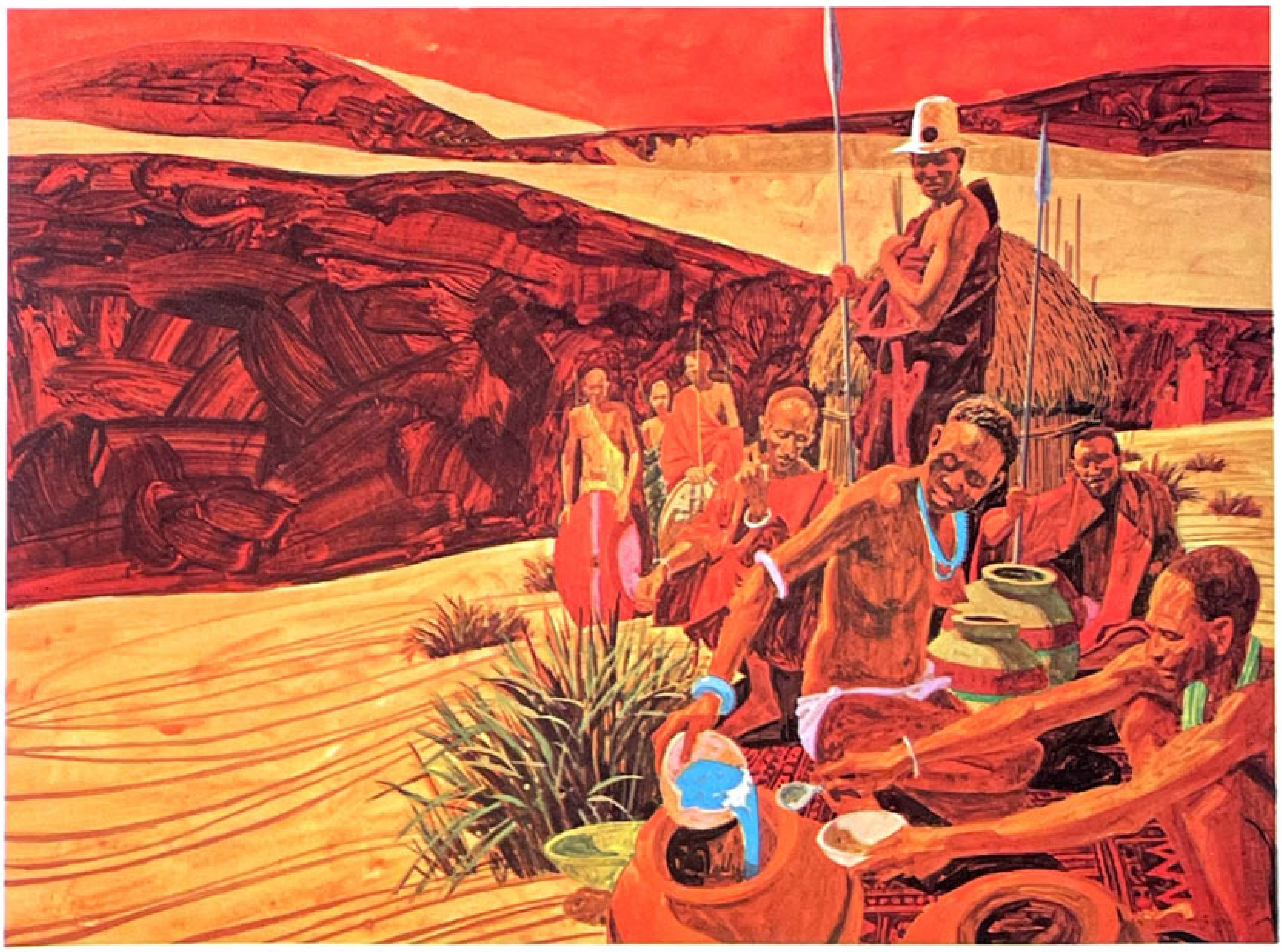


Step one

Step one: An illustrative approach to color is again evident here. In this one Brent worked in acrylic paint. Transparent washes of color were applied thinly over a line drawing. The line is still visible through the first color application. The streaked effect occurred because Brent used acrylic paint with a gloss medium.



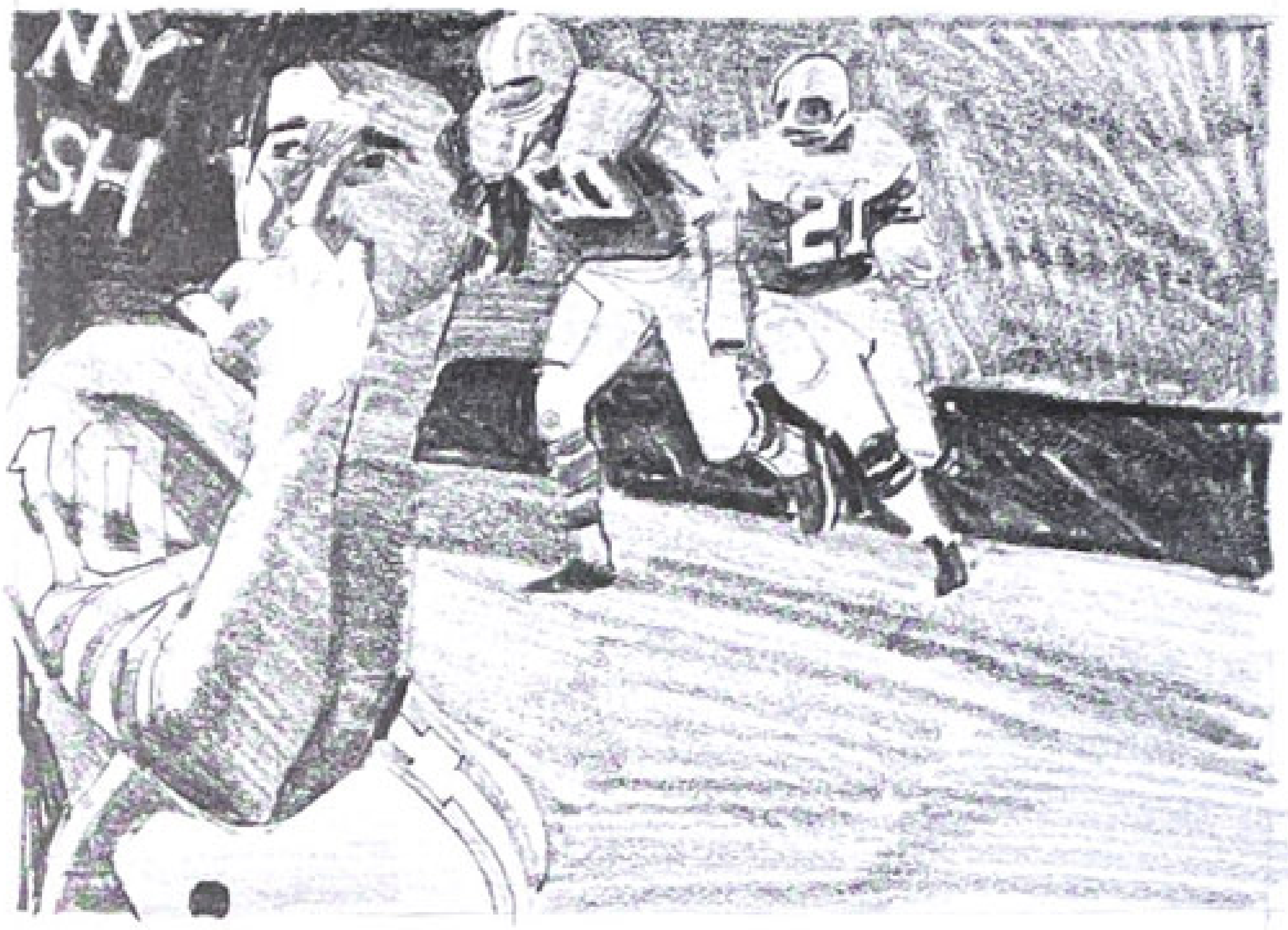
Step two



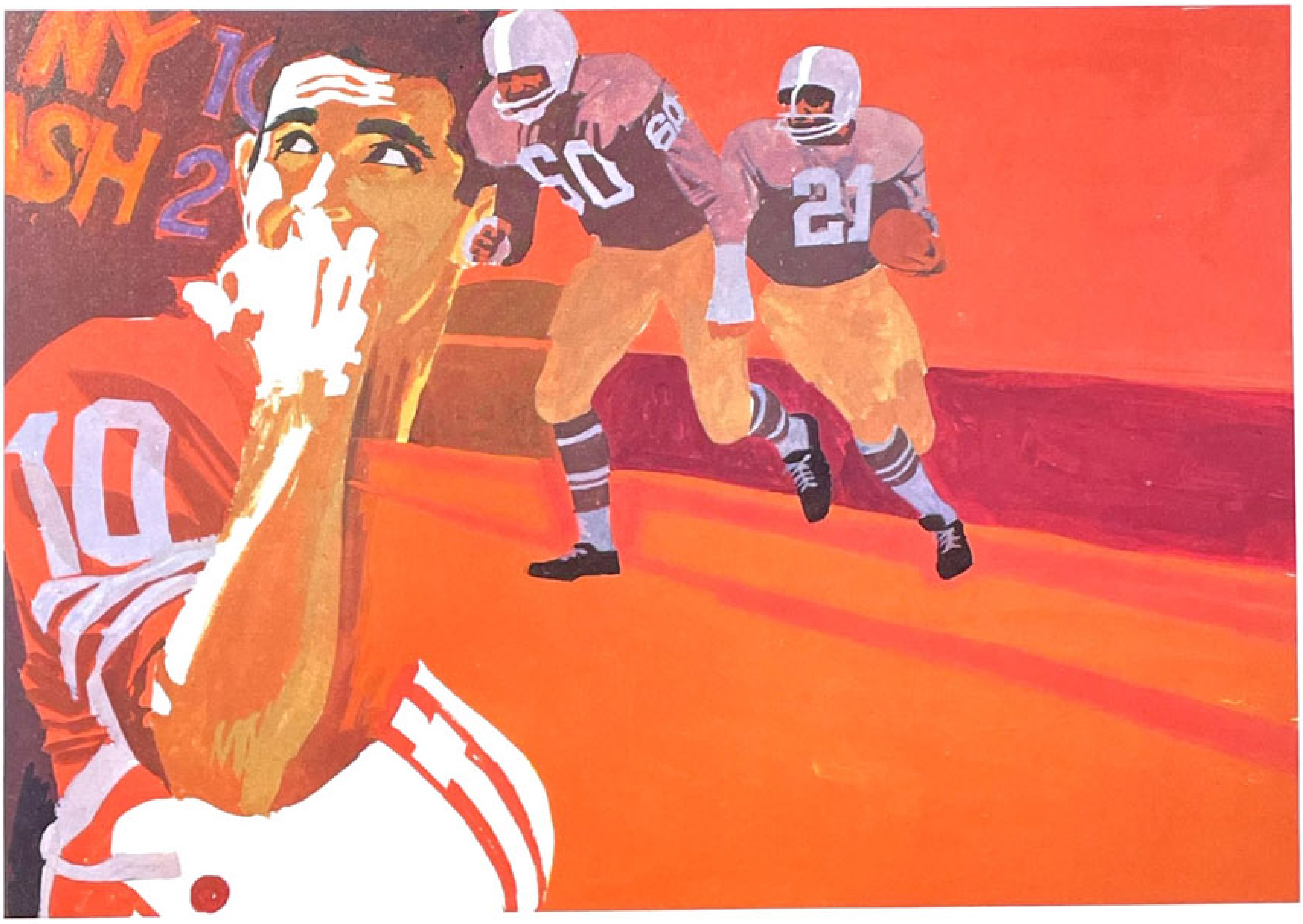
Step three

Step two: This illustration is basically an analogous color scheme. But, as we explained, most artists break a pure analogous arrangement with a few complementary colors. The cold blue colors here, give relief to the dominant warm analogous arrangement.

Step three: The impact of this illustration comes from a number of artistic devices. The large, empty shapes of the landscape, the tight overlapping figure group, the limited palette, all help to create a strong visual impression. The success of the final art is, of course, the result of hard thinking, careful planning, and years of doing!

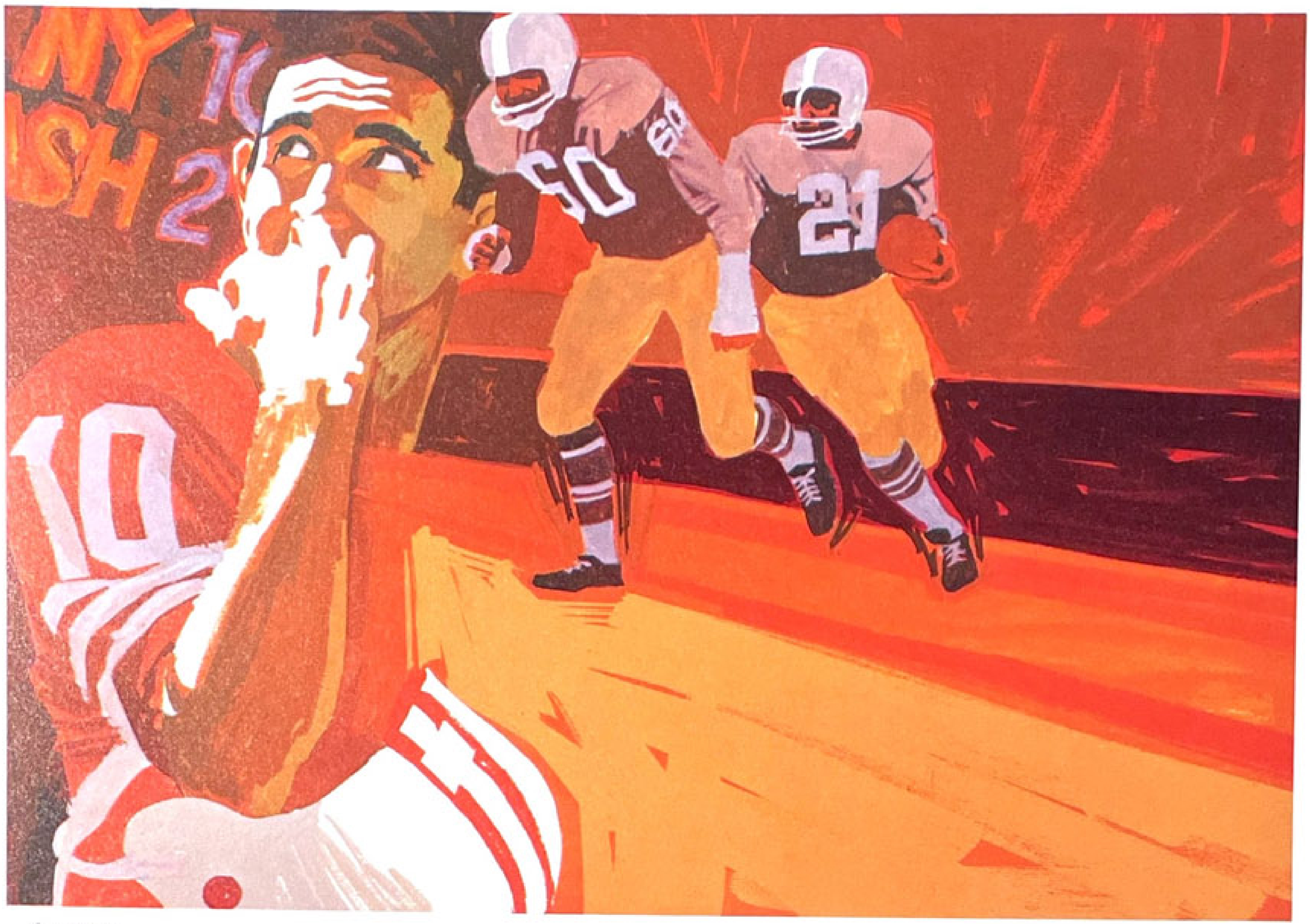


Even as the artist worked with the values, he was thinking of the colors he would use in this illustration. Mentally, he selected an analogous color scheme. In this pencil sketch Brent worked out the lightness and the darkness of the colors he planned to use.

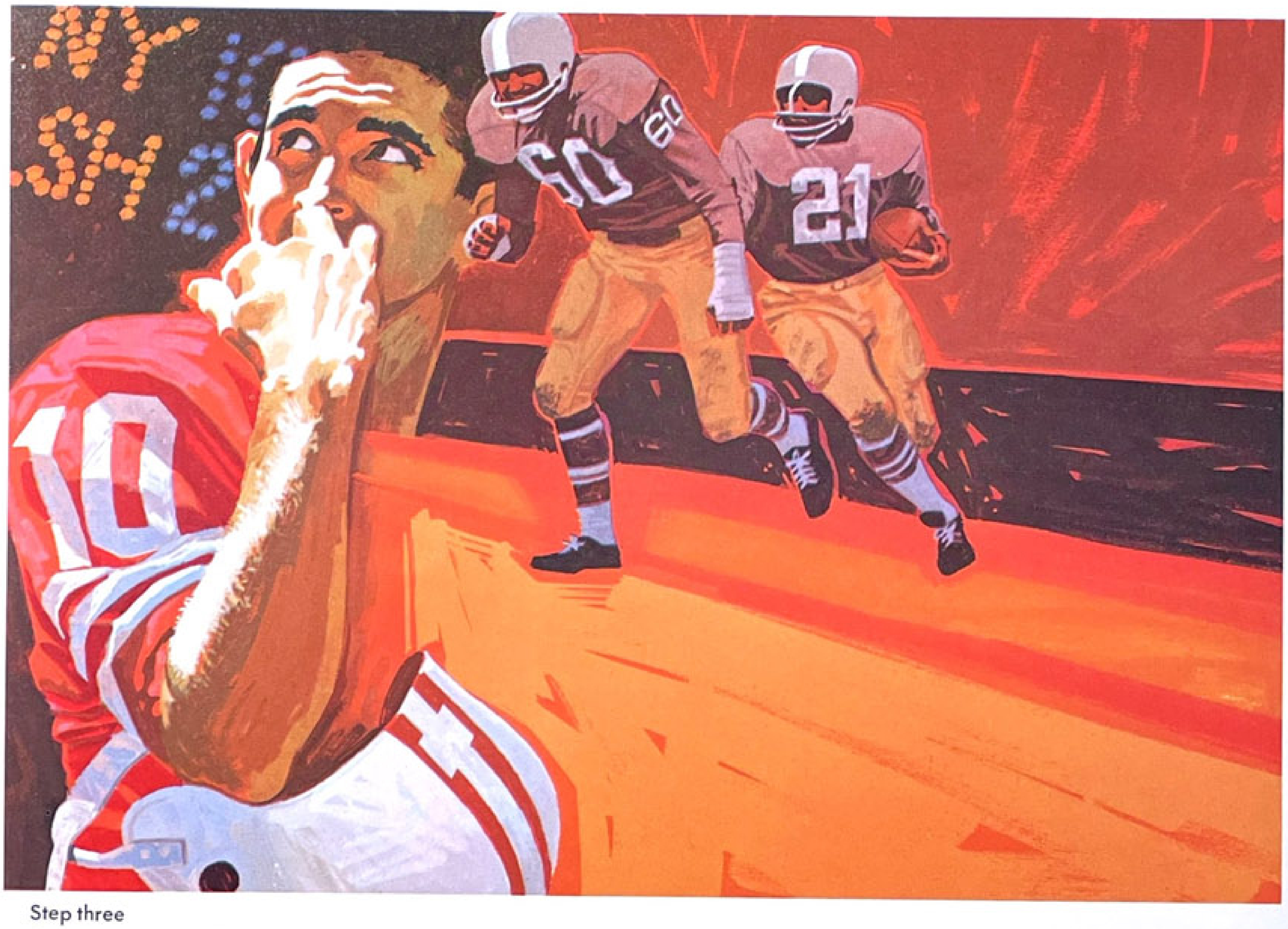


Step one

Step one: The areas of the picture are painted opaquely as the artist knew he could rework each area later with thicker color application. This illustration has both a theme color (red-orange) and an analogous color scheme (yellows, oranges, red-browns).



Step two



Step three

Step two: Bold brush work on the background shapes suggests the dramatic movement and fierce action of the football game. Often brush work, as well as the selection of colors, helps suggest the desired mood or feeling for an illustration.

Step three: True to form, Brent introduced some complementary blue hues to the analogous color scheme. And like the professional he is, Brent was able to finish the picture with tight, accurate detail, without destroying the strong color pattern established in the early stages of the painting.

Checking up on Yourself

Do You Remember That:

1. The twelve pure colors of the basic color wheel can be mixed from yellow, red and blue.
2. A color can be grayed by mixing it with its complement.
3. A tint is the result of mixing white with a color.
4. A shade is the result of mixing black with a color.
5. No matter how dark a color seems, in nature it will almost never appear solid black.
6. Any color may appear to change because of other reflected colors.
7. Colors have value, a degree of lightness or darkness.
8. Before starting a full-color painting an artist often works out a number of (pencil) value sketches.
9. One good way to establish color unity in a picture is to use a theme color throughout the painting.
10. Professional artists often limit their palette to only three or four colors plus black and white.

Did You:

1. Try some of the color schemes and simple palettes shown in this text?
2. Try mixing the twelve pure colors of the wheel from your three primaries?
3. Experiment with the consistency of your paints . . . their thickness or thinness?
4. Begin collecting good color reproductions of paintings and illustrations?
5. Make plans to include some painting in your work schedule each month?

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